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## Volume II BILL BARNES

November 1934

## AIR ADVENTURER A STREET & SMITH PUBLICATION

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## THE FLAMING CIRCLE . 10

Attack after vicious attack is unleashed on Bill Barnes as he and the Scarlet Stormer fight on against an almost impossible handicap in the round-the-world race.

by George L. Eaton

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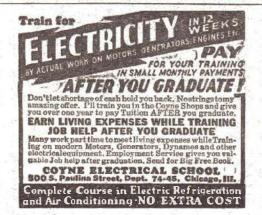
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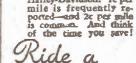
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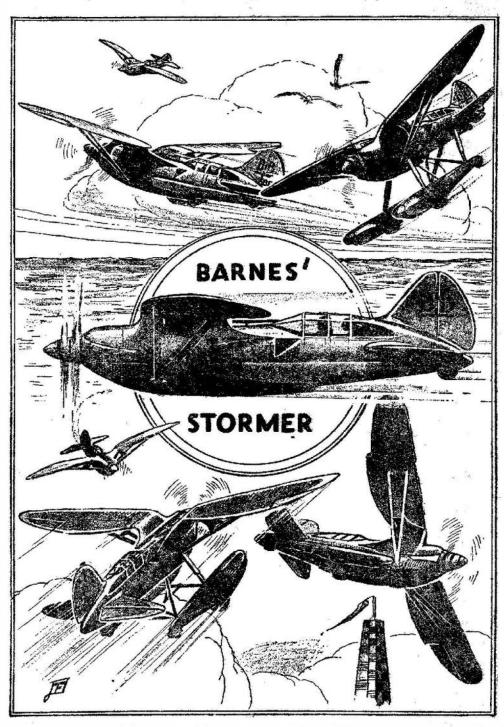
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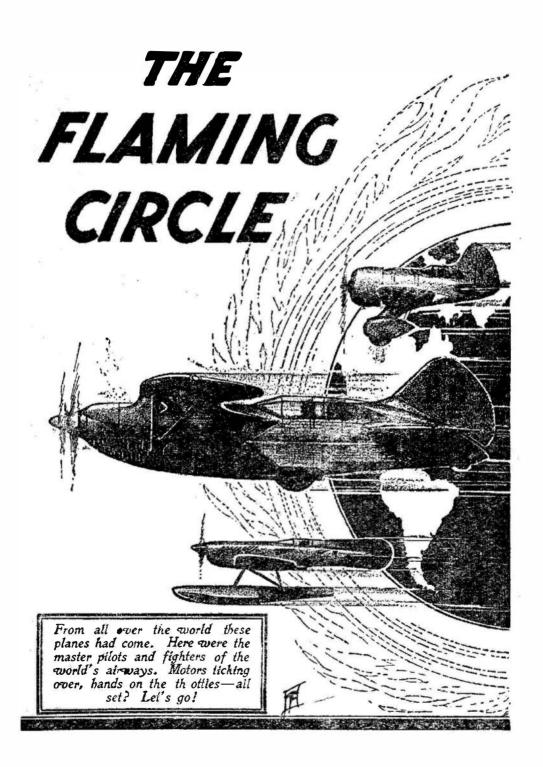
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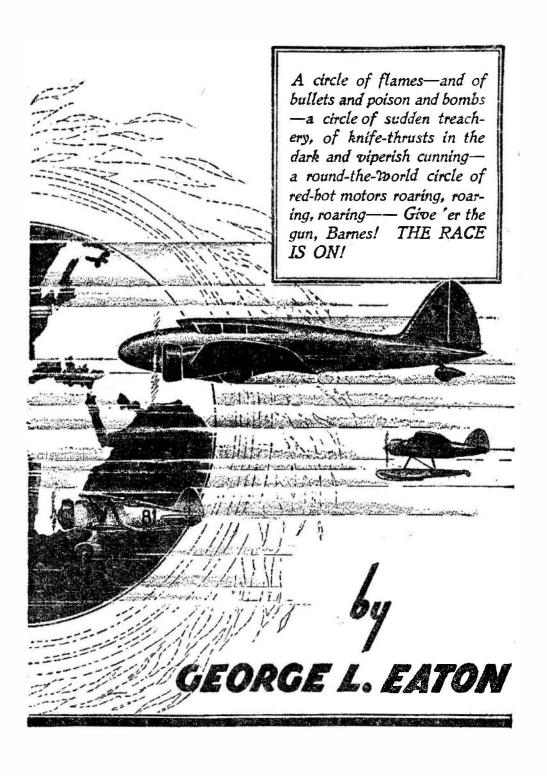
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The Ship On The Cover





Nine o'clock on the eve of the round-the-world, international air race.

BROADWAY, as always, was black with people. Incessant clamor filled the humid October night. Multicolored taxicabs nosed through seething traffic. Klaxons blared. Radios and orchestras in dimea-dance halls ground out jarring snatches of popular music. Policemen, grim-faced and sweating, monotonously directed waves of pedestrians across the turbulent avenues.

Around the Times Building moved the electric belt with the latest news bulletins. Crowds jammed the sidewalks on the four sides to receive word that again death had struck at the air field: VICTIM OF THIRD GREEN DEATH AT PARKER FIELD-MECHANIC OF GERMAN ENTRY FATALLY STRICKEN WITH STRANGE MALADY - RACE STARTS AT DAWN TO-MOR-ROW. Pushing through the jam, leather-lunged newsboys voiced an en-Extras with four-inch scare core. "PLAGUE heads blazoned out: SWEEPS AIR FIELD. Green Doom Victim Among Race Picks Third Speedsters."

On the east side of Broadway a skyscraper motion-picture palace was doing a rushing business. A mammoth illuminated banner hung high over the street proclaiming in large white letters that to-night was the première showing of "Hearts on High," a romance of the skies. The picture had been shrewdly timed to hit the Great White Way on the night before the start of the world race.

As an additional attraction a newsreel of the latest views of the racing planes and their dare-devil pilots was advertised. And the public, their interest whipped to fever heat by the prospective mad assault on time and space, and horrified by the sinister disease that had already claimed three lives at the air field, stampeded the place.

Throngs milled in the spacious lobby and spilled out to the street. Inside, every seat was taken. Fire regulations alone prevented the throngs from packing into every available inch of standing room. The interior was dark. The silvery track coming from the projection room cut through the gloom like a knife to widen out and bathe the screen in light.

The feature had just come to a tremendous climax. The audience was keyed up and expectant. The last shot dimmed away. Mechanical music swelled into the introductory march that identified the newsreel. The trademark of the news service broke onto the screen and receded.

The voice of the unseen announcer came from the sound tracks: "—bringing you the latest news events of the day. Parker Field, where at the first flush of dawn to-morrow forty-three lightning-fast planes will leave at five-minute intervals in a mad, globe-encircling dash."

The screen showed a sweeping panoramic view of the famous airport. "The field is jammed with aircraft from practically every leading country in the world—England, France, Italy, Germany, Japan, Sweden, Canada, Australia, America—and many others." Airplanes angling down across the illuminated square came in for sharp expert landings. Mechanics raced toward them. Engines roared.

"The field is packed with spectators," the announcer went on, his words crisp. "Many are here to spend the day and night, determined to have a clear view of the start of the greatest international air race in the history of aviation. Interest in this astonishing flight has been intensified by the ghastly tragedies that have already occurred. Three lives have been forfeited to an unidentified tropical

fever that kills in four hours, leaving its victims' flesh a ghastly green. Two leading pilots have already succumbed. Medical authorities are baffled."

On the screen an ambulance swung out through the airport gates, siren wailing.

"As an additional sinister note there is the strange disappearance of Don Batten, the crack Australian flyer. Here he is as he left his native Brisbane, Australia, flying the plane he was to enter in the race. His intention was to fly across Asia to England, there to place his racer on a liner and bring it to Parker Field. That was six weeks ago. He never arrived. Meager information claims that he disappeared while flying over Borneo, in the East Indies."

The camera swung back to the airport, lined with hangars. A semirigid dirigible floated low over the field. Flashing past it came a fast, streamlined biplane to roar down for a landing. The announcer talked on, terse and quick: "Here is one of the leading American contenders, the *Thunderbolt*, owned by Samuel Weir and piloted by Cash Gardhouse,"

The scene abruptly changed, depicting a two-engined, low-wing monoplane poised on the concrete and, standing beside it, a helmeted lean-faced pilot. "The German war ace, Otto Yahr—another favorite to win the hundred-thousand-dollar first-prize money."

The view moved on, rapidly. "Young Sandy Sanders, the kid ace of Bill Barnes' famous gang. He is flying with the famous pilot as passenger to-morrow."

The newsreel caught "Sandy" Sanders as he held a small motion-picture camera to his eye. He wheeled around, startled, his eyes widening. He lowered the camera and grinned. "One of our competitors in the movie business," said the announcer.

Another abrupt shift in scene swept

the screen. "And here is the king of pilots himself in his miraculous new ship, the Scarlet Stormer. Bill Barnes, America's outstanding ace, is almost certain to place well up in the money, barring accidents." A sleek, bullet-shaped monoplane thundered across the screen, circled the field and came down. Two floats were lowered smoothly from grooves in its body.

"The much-talked-of amphibian has been on the front pages since its test flight. Great things are expected from it." The Scarlet Stormer swooped gracefully down to the field, taxied across to a hangar.

The scene faded, to spring up again as a close-up of Bill Barnes sliding down from the cockpit. He came nearer, to stand in front of the camera. He was tall, broad-shouldered; his face was tanned. He jerked his helmet from his head and ran an oil-stained hand through blond hair.

Some one out of the camera's range asked: "Is it going to be a close race, Mr. Barnes?"

The pilot looked serious. "Close—yes. With forty-three planes entered, anything can happen."

"And what do you make of this Green Death?" asked his questioner.

Bill Barnes frowned. He hesitated and then began: "It's the work of some—"

From the main floor of the theater, five rapidly fired revolver shots blasted out, smothering his words. Bullets slashed across the screen to riddle the picture of the ace.

EVEN AS the echoes of the sudden fusillade roared out, the vast audience came thundering to its feet in alarm. A woman, high in the balcony, screamed. The entire theater was in an instant uproar.

"The Green Death!" some one shouted.

That was all that was needed. The

BILL BARNES

cry was instantly taken up. "The Green Death! The Green Death!" Terror swept the place. Pandemonium reigned. Shouts of "Fire!" added to the panic.

Humans, all reason and judgment forgotten, surged toward the exit doors, fighting and shrieking. The broad staircases became packed solid. People fell to be trampled on by the mob gone suddenly berserk. The picture of Bill Barnes went through its movements on the torn screen. His words were inaudible in the violent upheaval.

The man who had fired the shots was lost in the stampede, nor was he ever to be found or his motive known. At the inquest that was to be held over the fifteen crushed corpses, victims of the mob's hysteria, officials were to find no rime or reason for the shooting that had touched off the disaster. It was to be termed a crank's work and, perforce, left at that.

## II—THE AMBULANCE

SANDY SANDERS, the boy pilot of Bill Barnes' flying organization, had come into New York from Parker Field with some misgivings. It had been only upon Bill's firm insistence, which had virtually been a command, that he had temporarily relinquished the self-assumed rôle of bodyguard to his leader and sought a respite from the nerveracking strain of waiting for the take-off hour.

"Slide into New York and fool around for a while," Bill had advised. "That cameraman friend of yours sent you a pass to that Broadway movie house. Go in and give the newsreel the once-over. See how you look as an actor. I'll bet you're punk. Anyway, get away from this field, peewee. You've been sticking too close to it. You're getting jittery. And if we'll need anything, we'll need steady nerves when we take off to-morrow morning."

And for the first time in his young

life, Sandy had realized that he had nerves and that they were stretched to the breaking point. For months now, there had been the constant strain of being eternally on the alert. It had affected him, he knew. Even his interest in taking motion pictures with his recently acquired portable camera had failed even momentarily to distract him from the menace that seemed to choke the very air of the field.

Dangers had swooped over Bill even since the new superamphibian, the Scarlet Stormer, had been completed. The fact that he was one of the favorites to win the big race had made him a marked man. And he had to win that race and the hundred-thousand-dollar first prize. The future of Bill and his gang depended upon the sleek, scarlet bullet hurtling through to victory.

And then, added to everything else, had come the horrible tropical plague that had already struck down three airmen. It had seemed more than coincidental that both the pilots and Otto Yahr's American mechanic had all, at one time or other, served in the border patrol on the Mexican line.

Without having a scrap of proof, Sandy knew that behind the Green Death lurked human manipulators. The knowledge had set his flesh crawling. And he had found himself getting more and more apprehensive as the time grew shorter.

"O. K., I'll go," he said hesitantly, after seeing the look on Bill's face and knowing that there could be no refusal. "I may be jittery as you say, but, golly, I don't like to leave you now, Bill. With Shorty and the other guys stationed away off at the control points, who can you count on—if anything happens?"

Bill looked at him quizzically, "Beat it, shrimp," he said gruffly. "Nothing's going to happen. Get some fun into your system—relax. You'll be cutting out paper dolls if you don't. I'll look after radioing that list of stuff to Bev

in Lisbon while you're gone. You got it with you?"

Sandy dug down in his pocket and pulled out a small, red-leather-bound memo book with "Property of Sandy Sanders' heavily embossed in gold on the cover.

"The list is inside—here," the boy said, opening the book and handing it

The tall airman had glanced at the open page, closed the book and inspected the gold lettering on the cover. "You aren't taking any chances on losing this book, huh? You got your name big enough, peewee. I'll look after this business-you beat it."

"All right; but you be careful, Bill. You can't tell what'll happen around here."

And Sandy left unwillingly, his morbid thoughts constantly sending cold shivers up and down his spine.

THE BUSINESS of getting to the city, of finding a seat in the crowded theater, and of watching the familiar scenes revealed by the newsreel, had given him a certain relaxation. Even his fears for Bill's safety had receded. He had seen the picture of himself and laughed—and then had come the crashing detonations from the fired revolver.

It hadn't been fear for his own safety that sent him scrambling instantly for the aisle. Far down the orchestra he had seen the crimson stabs of flame from the gun. He had to get that gunman and find out his motive.

But Sandy had scarcely gained the aisle when the storm of humans broke all around him. He was caught up by the sudden wave and propelled involuntarily toward a Forty-third Street exit. The mob, coming from three directions, converged at the door.

Shrieks of agony arose as people were crushed helplessly against the walls. Reason had fled. Minds were paralyzed with panic. A sudden surge carried

Sandy through the entrance to be thrown violently to the street outside.

The pressure of the pack crowding through the door sent two women falling heavily over him. The boy, half stunned, the breath all but knocked from his slight body, retained enough sense to roll free. He staggered to his feet and plunged eastward along the street, buffeted by the human avalanche that was threatening to crush everything in its path.

His coat had been torn completely from his back; his tie and collar were ripped from his shirt. His hat had long since vanished and his tawny mop of hair was rumpled. A large bruise swelled bluely under his right eye. Every rib felt as if it had been staved

Outside, police reserves were arriving as fast as riot squad cars could dash to the scene. The alarm had been rung

in promptly.

Sandy didn't wait to see what was happening. He forced his way east on Forty-third Street on the run. One feverish thought hammered and hammered through his brain: Bill-he had to get to Bill. Something had happened to him. He knew it-knew it definitely.

The street was full of people running in the opposite direction, toward the scene of the disturbance. streaked through them, ignoring frantic questions that were hurled at him. His hands were clenched tightly at his side, nails biting into the flesh of his wet palms.

In his mind's eye he could picture a clip of bullets being poured into Bill's body just as they had perforated his The premonition picture. became stronger. He became positive that the tall airman's life was at stake. thought prodded him into a mad sprint. Too many deaths had occurred at Parker Field to ignore a warning.

He reached Sixth Avenue, raced under the gloomy shadow of the elevated and plunged into a cigar store at the far side. If he could speak to Bill on the telephone his fears would be alleviated. But every instrument was in use and half a dozen people were waiting. Down the street at a drug store he found the same situation.

Desperately he turned away, his eyes agonized. If he could only talk to Bill, somehow—quickly. A taxicab cruised slowly past the curb. With a bound, Sandy had gained the running board.

"Parker Field!" he barked. "And fast!"

The driver whipped around in his seat. His eyes narrowed as they swept over the battered appearance of the boy.

"Wait a minute. That's a long trip. Let's see the color of your dough first, bud."

Sandy worked the handle of the rear door and slid inside. He dug into a trousers' pocket, jerked out a five-dollar bill and held it up.

The man eyed the bank note, nodded, pulled down the meter flag, and sent the car surging forward. The sudden movement slung Sandy back against the upholstery. The cab twisted around an L pillar, swung with screeching tires into a side street and headed east. Traffic was heavy, and every light seemed against them as they worked their way uptown and across toward the Queensboro Bridge.

IT WAS during one of the many stops for red lights that Sandy found the driver inspecting him closely through the mirror above the windshield.

"Say, ain't you Sandy Sanders?" he asked suddenly. "Ain't you the guy who's flying with Bill Barnes in the race?"

"That's right," replied the boy.

The man turned around to look at Sandy with new respect. "I thought I knew your face. I seen your picture in the tabs. Say, you and Barnes are

going to fly in the race all right, ain'tcha?"

"Sure!" Sandy answered with more optimism than he felt.

"The reason I asked is I got ten bucks on you guys to win. And I hears a rumor to-night that you won't start."

Sandy stiffened, "Won't start—why?"

"I dunno. I thought maybe something had happened to Barnes—the Green Death or something. Betting odds has shifted, anyway. For a while your Scarlet Stormer was favorite, now it's that Thunderbolt plane and that other one flown by Otto something-orother—y'know, the German war flyer."

Sandy's heart was pounding. What the man had said heaped fuel on the fires of his fears. "If you want to cash in on that ten-dollar bet," he said, keeping his voice calm, "get me to the field—pronto."

The man winked. "You'll get there plenty fast."

He jammed the accelerator down, spun the wheel to miss a truck by a fraction of an inch and hurtled forward. Sandy grabbed the leather strap at the side to keep from being pitched to the floor. The driver had promised a fast ride, and he was making good. They zigzagged through traffic, hurtled up the ramp onto the Queensboro Bridge, and roared across it to Long Island.

Sandy sat hunched up in the corner, bracing himself against the swaying of the cab. His thoughts were speeding as fast as the vehicle under him. What the driver had told him wouldn't be all idle gossip.

The rumor had come apparently from the betting ring. The big-time Broadway gamblers were making a field day out of the air race. And when the "sure-thing" gentry became interested, anything could happen. Bill's Scarlet Stormer, since its test flight, had immediately become the logical choice for first place in the contest. Something must

**BB-1** 

have happened to shift the odds-or something was going to happen.

The car was racing wildly. The roar of its engine drummed in Sandy's ears. The houses and stores that lined the street streaked past in a blurred procession. Parker Field was situated far out on Long Island. It would take three quarters of an hour more, at the least, to reach there—three quarters of an hour of agonized suspense.

Sandy's teeth sank into his lower lip. His fears multiplied. He knew that he hadn't anything more definite to go on than a hunch, but that hunch was strong—too strong. And everything seemed to bolster it up.

If the cab driver's information had been reliable, the Scarlet Stormer's position as favorite in the race had suddenly been superseded by two other entries. And the identity of those two planes alone strengthened Sandy's suspicions that all was not well. One of them, the Thunderbolt, was owned by Sam Weir—and he was one of Bill's bitterest enemies.

Sandy's eyes were thin as he thought of the frail, inoffensive-looking little man. Sam Weir had been one of the biggest airline operators until a recent exposé of political corruption had forced him out of power. But he hadn't stopped there. His interests had become secretive and shady.

The hundred-thousand-dollar first prize for the world race, and the opportunities that would naturally come to the winner, had drawn him energetically into the contest. The *Thunderbolt*, the plane he had built especially for the race, was a fast, ultramodern biplane with a reputed speed of well over three hundred miles an hour.

Months previous, Weir had offered Bill the opportunity of piloting the Thunderbolt in the race. When his offer had been flatly rejected, he had threatened violence if the tall airman attempted to fly another ship in the con-

test. And he had backed up those threats with a campaign of bombs and bullets. Even though his attempts had been futile, he had been shrewdly clever enough to keep from being personally implicated in the attempted murder.

Sandy's fingers tightened over the hand strap. For a long time now Sam Weir had made no further attempts; but that didn't mean that he was through. The youngster knew, as did Bill, that the slick little crook would never give up. If the Scarlet Stormer took off in the big flight the chances of the Thunderbolt's winning were slim. Only one night remained before the scheduled take-off. If something was going to happen, it would have to take place that night.

Sandy winced and shot a despairing glance out of the window. He cursed himself for having ever been persuaded to leave Parker Field. Yet Bill could certainly take care of himself. Sandy's eyes probed through the glass partition which separated the front seat from the back. The driver was bending over the wheel, holding the cab to a fast, steady pace.

THE HIGHWAY over which they were now traveling was becoming more crowded. Their speed slackened from necessity. The majority of cars were traveling in the same direction and undoubtedly bound for the same destination. The public had become intensely absorbed in the spectacular race around the world, and most of those heading eastward were people who were planning to haunt the borders of Parker Field until the dawn take-off.

The taxicab roared past one car after another. Sandy, his face tense, sat unrelaxed. His brain churned with the possibilities of what might have happened to Bill or might happen before he could get to his side.

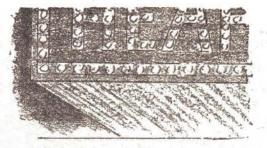
His thoughts angled off toward the possibility of danger from the other

ship that had risen to the position of favorite along with the *Thunderbolt*. It was a two-engined, low-winged monoplane owned and piloted by Otto Yahr.

Of him, Sandy knew little, except that Yahr had seen sensational service with the Imperial German Air Force during the war and had a string of victories over allied planes to his credit.

Aside from his brilliant war record, the man's reputation was none too good. He had turned from fighting Spads and Bristols to become a pilot of fortune, willing to mete out death for the heaviest money—revolutions, banditry, and smuggling. He had run the full gamut of the renegade aviator. Ever since he had brought his fast ship to Parker Field, his suaveness had grated on Sandy's sensibilities.

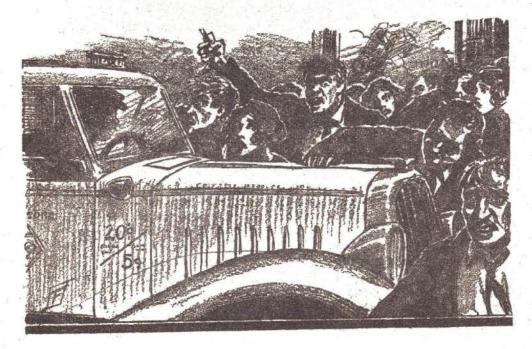
Otto Yahr was a Eurasian. His mother had been Chinese and his father German. The crossing of the two races had produced a strange and rather striking-looking man. He was tall and erect, with the fair hair and bright-blue eyes of the Saxon. But his skin was yellow and his blue eyes slanted. His



hands were long and slender; his fingers thin and of a surprising length. His manner was smooth and his tongue oily.

Innumerable times he had endeavored to insinuate his way into the good graces of Bill and Sandy and the Scarlet Stormer's mechanics, but had only met with cold politeness. He had been openly curious for a closer inspection of the Scarlet Stormer, and Sandy, suspicious of his motives, had deputized himself to make sure that the yellow-skinned Eurasian never got that opportunity.

Aside from his deep personal dislike, Sandy had really nothing against the man. He was an expert pilot. He





had a powerful, modern ship that was capable of long range at a high speed. In fact, the *Dragon*, ever since it had arrived at the field, had been considered a definite threat to all pilots with aspira-

tions for winning the glittering first prize. But with an even start, the Scarlet Stormer would have little trouble in finishing ahead of it. Yet the Dragon had become, with the Thunderbolt, one of the two favorites. And no matter how he looked at it, Sandy saw sinister shadows behind it all.

The ride seemed hours long. The boy, desperate with waiting, stared out of the window. And then, far ahead, he saw the powerful beacon light stabbing out from the air field. Parker Field!

His heart doubled its beat. He slid



forward on the seat, his hands gripping the leather strap. Would he find everything all right? Would Bill be there safe and sound to laugh at his fears? Had anything happened? The questions pounded in his agonized brain until he thought he'd go mad. But there wasn't much longer to wait.

The road was packed with cars. They began to pile up on each other as traffic became jammed farther ahead. Sandy writhed with impatience as their speed was cut down to a snail's pace. He leaned forward suddenly, pulled back

the sliding glass partition.

"Take this side road here," he said to the driver. "Go in that way. The main entrance will be packed with cars."

The man nodded, nursed the cab over to the side of the road and angled into a narrow, paved roadway that split off from the main highway. It was free of traffic. In the distance, lights were aglow. A white pencil from the powerful searchlight on the tower swept across the dark skies.

Sandy sat clenching and unclenching his hands. Perhaps he'd find everything normal. Perhaps his raw nerves had been responsible for the terrifying premonition that disaster had overwhelmed Bill. But the nearer Sandy came to the field, the worse he felt.

THE CAB was picking up speed. The road they were on was seldom used by any one except people actively connected with the airport. It ran down the full length of one side of the widespread Parker Field. A row of languars backed up to it. Halfway down was an entrance to the airport through a gap in the hangars.

"Turn left at that light down there!" bawled Sandy as the hangars came into view. "It's the entrance. Right-angle turn."

"O. K."

With dazzling suddenness the floodlights which bordered the large landing field abruptly sprang into life, bathing the area with a brilliant blanket of white illumination. Sandy, startled, whirled around in his scat. At that moment he heard the shrill keening of a siren. It was growing stronger and stronger every second, its blood-chilling wail vibrating through the night.

Ahead the entrance showed. A weak light hung high over the gap in the row of hangars. The blaring of the siren was deafening. As the cab driver jerked the steering wheel to the left to make the turn into the entrance, Sandy suddenly realized from where the sound

was coming.

"The entrance!" he bellowed. "Look out!"

Before the words had left his lips a vehicle with two blazing crimson headlights hurtled out through the gap between the hangars.

A blistering curse ripped from the cab driver's lips. He jerked on the emergency. The taxi swerved, wheels locked. The onrushing vehicle coming out of the entrance careened madly over on two wheels to turn into the road outside. Sandy had a momentary impression of a long white body, of a red cross painted on its side, and then the ambulance sideswiped the taxi.

Tires screamed. Metal screeched against metal. The fenders of the ambulance ripped off the cab's front bumper cleanly. The tank was thrown hack. Sandy was buried violently to the flace by the sudden impact. The cab haded with a crash, its rear end in the shallow ditch at the side of the read.

Dazed and shaken, the boy struggled to his feet. The can was tilted over at an angle. Somehow the driver of the ambahance had made the turn. It was speeding down the road, its red tail light dwindling rapidly. The siren was silent.

An ambulance!

Sandy grabbed for the door handle,

Jerked it open and half fell out. Something had happened inside the airport—an emergency case. The ambulance driver had taken terrific chances. He had made that turn into the road only by the hand of Providence. And if he had turned the other way he would have plowed straight into the taxi.

The driver was still clutching the

wheel and cursing wildly.

"You all right?" gasped Sandy.

His eyes swept over the taxi. Somehow, with the exception of the front bumper, the cab had incurred little damage from the near-collision.

The man turned a blanched face toward him. "I'm all right. That damn' truck——"

"It was an ambulance," said Sandy, his voice shaken. "An ambulance."

Shouts were coming from the field inside. Sandy whirled around. Through the narrow gap of the entrance he could see running men.

"I don't give a damn if it was a hearse," raved the driver. "They damn near—"

The boy cut him short. His brain was paralyzed with the possibility of what had happened. An ambulance—an accident. Some one hurt. Bill! He jerked the five dollars from his pocket, thrust it at the man.

"If that doesn't cover everything," he whipped out, "let me know."

And with that he was gone. He never heard what the driver said. He was sprinting madly through the entrance. Icy fingers closed over his heart. All his fears came to a horrifying peak. The light-bathed field was dotted with men. They were all headed in one direction—toward the east end of the field. A siren far over at the control building suddenly burst into life. The alarm signal!

The boy, putting every atom of power in his short legs, headed across the turf. He overtook a man dressed in a mechanic's jumper. "What happened?" he gasped.

The man was out of breath. "Don't know—Green Death again!"

HORROR clogged Sandy's brain. He streaked past the mechanic. It wouldn't be Bill. It couldn't be. Bill dead—struck down by the ghastly plague? It couldn't have happened!

His breath was coming in great sobbing gasps. The running men were converging far down, almost at the eastern boundary of the field. Sandy ran past two pilots. He recognized them in a flashing glimpse as fellow competitors in the race—the crew of the French entry.

The crowd had gathered together in a knot around something. Sandy pushed wildly through. Men turned on him fiercely as he fought past them and then, seeing his face, abruptly gave way.

Some one shouted: "Here's Sanders. Let him through!"

Terror stabbed through Sandy. Whatever had happened had something to do with him. Everybody seemed to be shouting at once. And then he was through. His eyes widened. In the middle of the small circle lay a man. The boy got one look at his face and gasped. It was Martin—Bill's head mechanic.

The man was lying on his back, motionless. His dark hair was matted. Blood streamed down his colorless face. His eyes were closed. His chest rose and fell irregularly. Some one was holding his head and dabbing a crimson handkerchief.

Sandy dropped down beside Martin, his eyes burning. Who had been taken away in the ambulance—Bill?

"He's still unconscious. He isn't badly hurt," said the man holding the mechanic's head. "A doctor's coming."

"Where's Bill Barnes?" demanded Sandy. "Where's Bill?"

His words seemed to bring conscious-

BILL BARNES

ness back to Martin. The head mechanic's eyes fluttered open.

"Mr. Barnes," he muttered. "Did they get Mr. Barnes, too?"

Sandy went cold. "What? Was Bill with you?"

The man struggled to sit up. "Yes. We were out walking. Three men jumped us. Something hit me over the head. That's all—I—remember."

He fell weakly back.

Stark horror paralyzed Sandy. He saw it all in one flashing second. Bill was gone! Bill had been captured and spirited away in—the ambulance!

## III—ANXIOUS WAITING

McKAY, reporter of the New York Evening Globe and assigned to cover the activities at Parker Field, phoned the night desk at twenty minutes to eleven.

"McKay talking. . . . Get a rewrite man on the extension—fast—biggest news break since Lindy's hop. . . . Ready? . . . Bill Barnes has disappeared—kidnaped—just happened. Three mugs did the job. Got clean away—to•k Barnes in an ambulance. Clever trick—pulled it right under the noses of the biggest crowd in the field's history.

"Barnes and his head mechanic, Martin, were jumped as they were walking far down at the south end. Martin knocked cold with blackjack—bad scalp wound—everything timed to a farc-ye-well. Ambulance raced across the field—picked up Barnes and his attackers—and they faded fast through south entrance. Sandy Sanders, Bill's kid flyer, arrived just as the ambulance was leaving—almost rammed his cab. Field police have thrown cordon around the field. Radio and cruiser cars are screaming up here every minute. Place lousy with cops.

"Tense excitement sweeping the field. Rumor rife that Barnes is dead, victim of Green Plague. No confirmation on that. Police have net out. Every road in the vicinity being watched—checking hospitals for any missing ambulance. That's all for now. . . . Call you back."

At eleven o'clock McKay was back on the phone.

"Here's the latest. Sensational stuff. Police have found the ambulance—overturned in ditch off Highway 19—ten miles from here. Barnes not found. Ambulance from St. Stephen's Hospital in Flushing. Got emergency call over phone, at ten o'clock. Driver and interne murdered—bodies found jammed inside the ambulance. All the roads are blocked for miles around. Traffic completely stopped.

"Police working in a great circle and closing in. Haven't found anything yet. Hangar 43 where Barnes' Scarlet Stormer is housed being watched by a squad of his mechanics—all carrying rods. Worth your life even to look at the place. Young Sandy Sanders is in command. He's the only one of Bill Barnes' gang here. The rest are scattered around the world at the control points of the race.

"Police are grilling a flock of the pilots over in the control building. Every one of 'em would have a motive for getting Barnes out of the race. They all have a chance to win now. Field seething with excitement. Police lines keeping the people in order. Roads are jammed with traffic heading this way. Grand ballyhoo for the race, but tough on Barnes. I'll try to feel young Sandy Sanders out. He might know something. The kid's pretty smart.

"A couple of planes just came in from the coast—sight-seers. The semirigid dirigible, Sky Queen, is flying low over the field. I can see her navigation lights from here. She's privately owned. Been cruising around the field for the last day or so. United Broadcasting Co. giving radio broadcast straight from the field. Nothing new yet.

"Wait a minute! Just heard from one of the dicks. The police lines closed in and didn't find a thing—means the snatchers have given the cops the slip somehow. Barnes has absolutely vanished. More later. . . "

SANDY SANDERS paced in front of Hangar 43, his eyes red-rimmed from lack of sleep, his young face drawn and tired. He wore a brown suède flying jacket. Around his waist was a broad webbed belt. Over his right hip bobbed a holstered .32 revolver.

The field was quieting down. The clock had just struck twelve. Behind Sandy the doors of the hangar were Inside lights burned. tightly closed. Sandy went wearily for the hundredth time to the small door and stuck his head in. His heart was sick. Under the white glare of the daylight lights was the Scarlet Stormer, its redlacquered surfaces gleaning. It seemed to be poised, ready for flight. The two metal propellers hung motionless in its point nose. It was a ship without a master.

Four mechanics in soiled white jumpers looked up alertly as the door opened, their hands going in unison to grasp the black butts of revolvers hanging at their sides.

"Everything O. K.?" asked Sandy, his voice expressionless.

The man nearest him was Martin, the head mechanic. His head was heavily bandaged. He had refused to obey the doctor's advice to get some rest and had stubbornly insisted that he stand on duty over the machine that Bill was to have flown the following morning.

"Everything O. K., sir," he replied. "Any news?"

Sandy shook his head curtly and closed the door. He turned and walked methodically down the concrete, toward

the control building which had been turned into a police headquarters. He passed in front of a line of hangars. Pilots came out to say a few words of sympathy. Sandy scarcely heard them; replied his thanks in a dead voice.

For hours he had hoped that some word would come. But Bill and his captors had apparently melted into nothing. The police had found the ambulance wrecked; had found the murdered bodies of the original driver and the hospital interne, but there had been no sign of where Bill had been taken. And at five thirty the following morning the first of the planes would take off. It looked hopeless.

"I am sorry to hear of your misfortune, Mr. Sandy," said a soft, sibilant voice.

The boy looked up quickly and saw Otto Yahr, the former German war pilot, coming from his hangar to meet him. He was tall and carried himself in a stiff military manner. His slanted eyes were blue and his hair blond.

A wave of anger swept over Sandy. He fought it back. "Yeah; it's tough," he said coldly and kept on going.

The Eurasian fell in beside him. His voice was low. "You have your suspicions, my young friend?"

"What do you mean?" asked the boy, evenly. Of course he had his suspicions and this man was one of the men he suspected.

"I mean, you probably think some one here at the field has arranged for your leader to be captured and held until the race is well under way." The man's voice was suave and oily. "You must have some idea who's responsible."

Sandy nodded curtly.

"It is too bad, this thing must happen. It would have been so fine if everything could have gone off without any foul play. It is scarcely sporting, what has happened."

Sandy grunted. "With a hundred-

grand stake up, some guys don't think of the sporting thing."

The Eurasian clucked his tongue dismally. "Is it not so? But perhaps your Bill will come back in time. He has the faculty of getting himself in and out of trouble, I believe."

Sandy didn't reply. He kept on walking. If they'd only leave him alone! It was bad enough to have Bill gone like this without every one telling him how tough it was.

The German war ace stopped suddenly, clicked his heels and bowed. "I bid you good night. I must get some sleep. To-morrow I start a long flight."

Sandy had the impression of a mocking tone in his voice. The boy said "Good night," and went on.

In the control building the police commissioner had nothing new to report. Everything possible was being done to find the famous aviator, but there were no new developments. Sandy had heard the same story for the last hour. He went back out of the door, his shoulders slumped.

BILL had gambled everything on getting the Scarlet Stormer built in time for the big race. He had known that he had one of the best machines that had ever been designed, and he had been fully confident of winning the race. His whole future and the future of his loval gang depended upon the Scarlet Stormer's racing home ahead of the pack to win the hundred thousand dollars. That money meant everything. If he failed in the big test—he was through. Sandy realized it bitterly. But there was nothing the boy could do but make sure the Scarlet Stormer was guarded carefully and pray that Bill would come back in time to get away in the take-off.

The pilots were leaving their hangars and strolling across the field toward their quarters. It would be their last sound sleep in days. Sandy looked across the field. Batteries of the field

lights had been extinguished, but the large landing area was still illuminated.

He heard the roar of motors and looking up saw the *Sky Queen*, the semirigid dirigible, floating across the field, its navigation lights sparkling like stars. The big gas bag was privately owned and had been wandering around the field for the last few days. Its occupants were assuring themselves of the best possible view of the take-off.

Sandy's eyes were still on the Sky Queen when the revolving searchlight from the tower back near the control building swept its funnel of white light over the long cigarlike bag of the dirigible. It glistened like quicksilver. He was walking, eyes upturned, when some one bumped heavily into him. The force of the impact shook Sandy and knocked him back on his heels. He whirled around.

"Watch where you're going!" snarled a voice.

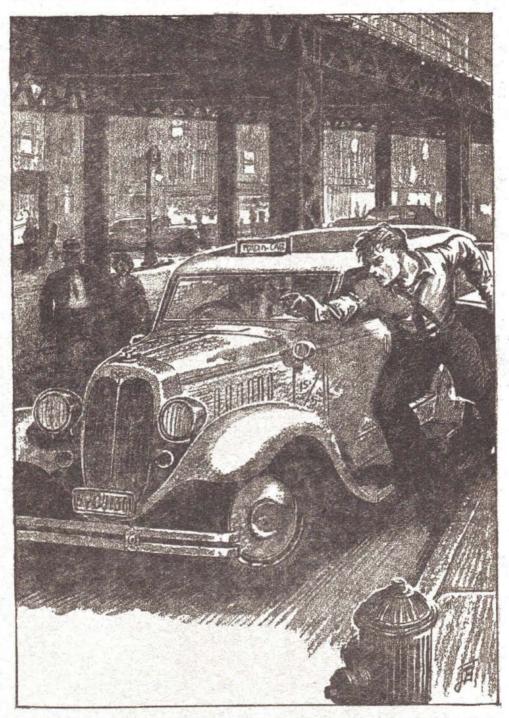
Sandy's eyes swept over the speaker and recognized him immediately. He twas "Cash" Gardhouse, the pilot of Sam Weir's *Thunderbolt*. Unconsciously, the boy's hands doubled into fists. The flyer was looking intently at him, a sneering smile twisting his thin lips. His nose was large, like a beak. His eyes were small and green. A yellowing cigarette butt dangled out of the corner of his mouth.

"It might be an idea to watch where you're going," retorted Sandy.

The man's eyes narrowed. "Beat it, you little shrimp! Get out of my way. No sense your hanging around here any more. Your guardian angel, Barnes, won't be coming home. You won't have to leave the light burning in the window. Boy, I bet he cleans up plenty out of this racket."

"What are you driving at?" asked Sandy evenly.

"As if you didn't know. Why should Barnes go to all the trouble of flying round the world? He gets himself



Sandy leaped to the running board, speared out one hand, and yelled hoarsely: "Parker Field—and make it fast!"

rated as favorite. All he has to do is plank down a wad of dough that he wouldn't win. There'd be plenty of takers—suckers. Then he pulls this faked kidnaping. Stalls around until it's too late and then comes back—to collect—you—"

Sandy brought his right fist up in a terrific swing to land squarely against Gardhouse's jaw. His right followed, to slash across the man's face. The Thunderbolt's pilot was hurled back to

crash heavily to the ground.

The boy stood over him. Cash Gard-house shook his head groggily, glared

up at his small adversary.

"Get this into your head, fella," said Sandy, his eyes burning. "When anything crooked is pulled, your boss, Weir, will be the man behind the scene. Bill's coming back in time to get into this race and in time to beat your ship to the finish line. And you can tell Sam Weir that for me."

"I've heard it firsthand," said a voice behind him. "Glad to know it."

Sandy whirled as Sam Weir strolled up. The small, slight man was immaculately dressed in a dark suit and a dark fall topcoat. A black fedora rested on his head. His complexion was pink and white.

Sam Weir looked down at his pilot and chuckled. "You can't tell about size, Cash," he said. "Bill Barnes has tough guys working for him. Yes, indeed! Terribly tough!" He raised his hands as if to ward off a blow.

Gardhouse rose slowly to his feet and then made a lunge for Sandy. The boy side-stepped quickly and ducked. A wild haymaker sailed harmlessly over his head.

Weir grabbed his pilot. "Cut it out, you fool!" he said pleasantly, his small eyes hard. "Stop bullying the kid. It might make him angry. He has enough to contend with—Bill having apparently disappeared."

He turned to Sandy. "Well, here's

luck! Perhaps Mr. Barnes will be back soon. You can never tell about that man—no, sir. A charmed life, indeed. Ah—what's the old saying? 'Stone walls do not a prison make, nor iron bars a cage.' Ha—"

Sandy didn't dare stay any longer. His restraint had snapped when he had plowed into Gardhouse, and he was feeling like repeating the same treatment on the elderly crook. The man's words had been honeyed and gloating.

Sandy went back down the concrete toward the Scorlet Stormer's hangar. He'd have to get a better grip on himself. That was no way—flying off the handle like that. It had almost seemed that Cash Gardhouse had tried deliberately to get his goat.

His thoughts were furious. Some one had arranged for Bill's disappearance—some one actively connected with the race. And his suspicious settled on two sources—Sam Weir and Otto Yahr. One of them was responsible, be felt sure.

He went inside the hangar and sat down in a chair, his eyes worried. Every time he saw Cash Gardhouse he had the feeling that somewhere, sometime in the past, he had seen the man, or some one who had looked like him. He pressed his finger tips over his eyes and racked his brain. The long, beak-like nose, the small greenish eyes, the honey-colored hair, the cleft in the chin—and then he came bolt upright in his chair. Now he remembered!

It all swept back to him, clearly. He saw again the small Mid-Western town where he had spent his early boyhood. He remembered the man hunt for "Killer" Galt, a local bad man and murderer. He remembered vividly the morning that he and his two pals had come suddenly upon the fugitive lurking in a hideout down by the creek. He remembered how Killer Galt had charged them with murder in his eyes when he had seen that he'd been dis-

covered; he remembered how he had stuck out his foot and tripped the man.

The murderer had fallen heavily; his head had struck a rock, and he had been knocked unconscious. The searching posse had been called and the bad man captured. Sandy and the other boys had been local heroes. And Killer Galt had looked exactly like Cash Gardhouse.

Sandy's fingers tightened over the arms of the chair. His mind was racing. All the forgotten memories, once stirred, awakened to full life. Killer Galt had snarled in his face as he had been led back to town and had sworn that he would kill Sandy if he ever got his hands on him.

Sandy saw in his mind's eyes the man's rage-distorted face; the large hooked nose; the matted, honey-colored hair, the small, blazing green eyes; the cleft in the prominent chin. His face was almost identical with Sam Weir's pilot.

But Cash Gardhouse couldn't be that man. Killer Galt had escaped shortly afterward and had, from reports, fled to Mexico. Months later, the town had buzzed with news that Killer Galt had been slain down near the Rio Grande. No; Cash Gardhouse couldn't be Killer Galt; but he was identical in looks.

AND THEN all the remaining cobwebs were swept away. Sandy recalled it all clearly now. Killer Galt had had a twin brother—an aviator! The boy remembered how the local paper had put it: One brother killing other people; his twin trying to kill himself. The twin had never, that Sandy could recall, visited the town.

The boy sat tensely in his chair. Then Cash Gardhouse was the twin brother of the murderer, Galt. Cash had changed his name. From the way Killer Galt had looked at Sandy that day, he knew the man would never forget him, yet Cash had evinced no spark of recog-

nition when he had first seen Sandy. Besides, the murderer had been reported to have been killed in Mexico. Cash was his twin brother, all right; there seemed no doubt about it.

Martin's voice suddenly cut through his thoughts: "The radio, Mr. Sanders. There's the signal."

Sandy jumped to his feet. From the cabined cockpit of the Scarlet Stormer sounded a shrill buzzing. He ran across the concrete floor and nimbly swung himself up into the cockpit. Quickly he slapped earphones over his head, plugged them in and connected the microphone.

"Calling Sanders— Calling Sanders," came a faint voice. "Calling Sanders—"

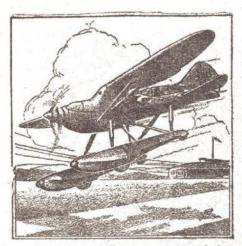
Sandy recognized the voice immediately as belonging to Beverly Bates who was stationed in Lisbon, Portugal, in charge of a supply base for the Scarlet Stormer: The tall Bostonian, together with Cy Hawkins and "Red" Gleason had been recalled by Bill from their long vacations to join "Shorty" Hassfurther, Sandy, and the famous pilot himself in the preparations for the world race.

Bill had sent them out, with the exception of Sandy, each man flying a Snorter, to the four control points of the round-the-world route where each competitor was forced, by the rules, to land and check in and check out with race officials. "Bev" had gone to Lisbon, Portugal, the first control point; Cy Hawkins to Bombay, India; Shorty Hassfurther to Bangkok, Siam, and Red Gleason to the fourth and last control point at Tokyo, Japan.

"O. K., Bev. Sandy talking. . . . Shoot," the boy said into the microphone.

After Bill's disappearance, he had reluctantly broadcast the news to the four men at the control points.

"Any news yet?" came Bev's voice. Sandy's face was grim. "Nothing.



The Stormer with floats extended.

Police are combing the whole island. All we can do is hope."

There was silence.

Then: "But can't you do something? Hell, there's only a few hours before the take-off."

"There's nothing I can do, Bev," said Sandy, his voice agonized. "The cops are doing their level best. Bill will get back here somehow, Bev. The race isn't over yet."

Bev's voice was gloomy. "I don't know if there's much hope. Say," his voice sharpened. "I thought you were going to radio that list of stuff you might want."

Sandy frowned. "Bill said he'd do that earlier in the evening, Bev. I guess he forgot. He must have my memo book with him now—wherever he is."

"O. K. It isn't as if the stuff's vital even if the Searlet Stormer does get into the race. Let me know immediately if Bill's found—dead or alive, kid."

Sandy shuddered. "I will, Bev. I'll

—I'll let you know."

He flicked over the switch and pulled the plugs from the jack. Slowly he climbed down from the cockpit and walked wearily back to his chair.

At one thirty Sandy made another trip to the control building and returned, his spirits at a low ebb. The police had learned nothing more. The field was quiet. The spectators who were staying the night were sleeping in their cars. The pilots of the racing machines had long since disappeared into their quarters. Far overhead the Sky Queen droned, lazily keeping its vigil over Parker Field.

The boy came inside the hangar again and sat down. He watched the hands of his watch and waited. It was all he could do. He might go rushing off around the country following wild-goose leads and then be missing if and when Bill turned up. No; his job was definitely to stick with the Scarlet Stormer. But the inactivity and nervous strain were exhausting.

The hours seemed to whip away with incredible rapidity. And still no word. Two o'clock—three—four. Sleep was furthest from Sandy's mind. His eyes burned redly. His face was lined and haggard. The armed mechanics kept their ceaseless vigilance. At four thirty one of the men brought in sandwiches and coffee. Sandy took them gratefully.

Suddenly from the field outside came the roar of an airplane engine, blasting through the quiet. The boy went immediately to the door and looked out. The skies in the east were tinged with light. Another engine, farther away, thundered. And with a shock the boy realized that mechanics were already beginning to tune up their racing ships for the last time. There was only an hour left before the start.

## IV—THE START

SANDY spent that hour outside, pacing up and down in front of the hangar. The light in the east began to increase as dawn slowly broke over Parker Field. The whole airport was rapidly awakening to life. It was a day that had long been anticipated—the launching of the round-the-world race.

Planes were being wheeled out onto the apron. The Mexican monoplane that had drawn first place in the takeoff positions was wheeled over to the runway. Pilots began to appear, dragging on heavy flying suits as they came. The roar of engines blasted through the sharp October air. The throng of spectators was wide-awake and watchful.

More were streaming in by automobile from the crowded highway. The early hour wasn't going to affect the attendance. Police lines were thrown out to keep the field clear. Officials, glittering badges on their lapels, sauntered out of the control building to assemble in the specially constructed stand.

Two shining white ambulances were run out. Fire apparatus stood ready and waiting for emergencies. The announcer made a preliminary test over the sound equipment.

The premature sunrise gave promise of a clear morning. Excitement charged the field. In a matter of minutes the gigantic aerial competition would begin. The Sky Queen swung lower over the field, its great envelope shining with the first rays of the sun.

Sandy leaned against the hangar door and watched it all, sick at heart.

At twenty minutes past five, the announcer's voice came rolling over the clusters of amplifiers.

"Ladies and gentlemen, the greatest event in the history of aeronautics is about to take place—the international air race around the world. The forty-two contestants will take off, one at a time, as rapidly as possible from the central and western runways. There is no handicapping. The order of the take-off positions has been established by draw.

"The route leads clear around the world and back again to New York City. There are four control points—Lisbon, Bombay, Bangkok, and Tokyo. From Tokyo to the finish at the Battery in New York City, any route may be

taken. To the first plane over the finishing line goes the prize money of one hundred thousand dollars. And may the best man win!"

The man's voice was amplified to boom over the tumult of the thundering engines. Sandy's eyes were dull. "May the best man win!" And Bill wasn't being given a chance.

"We are sorry to inform you," went on the announcer, "that the world-famous pilot, Bill Barnes, who mysteriously disappeared last night, has not been found. Mr. Barnes had drawn the thirty-ninth take-off position. It is still hoped that he will appear before his turn comes.

"At the head of the central runway is the Mexican monoplane, designated No. 1. Pilot Gonzales and his mechanic are now climbing into their cabin. These men have drawn the coveted first position."

A SLEEK, low-winged monoplane was poised at the head of the runway. Two white-jumpered figures climbed up into the cabin. The engine was running smoothly. Sandy suddenly thought of his movie camera and his plan of making a camera record of the race. He went back inside the hangar and came out with the machine in his hands. It would give him something to do and might ease the terrible strain of waiting.

He held up the camera, squinted through the range finder and clicked over the catch. Mechanism whirred.

An official came to the side of the runway. A black-and-white checkered flag was upraised in his right hand. He glanced sharply at his watch and then whipped the flag down. It was precisely five thirty.

The monoplane's engine thundered, drowning the sudden cheer from the crowd. The ship, brakes released, moved forward, picked up speed. The tail came up. It raced down the run-

way faster and faster. Sandy followed its progress with the camera. The announcer was bellowing descriptive words over the loud-speakers. The monoplane bounced once, twice, and then was off the ground and into the air.

The first plane was away! The world race had begun!

Sandy got it all on the film. He closed the catch stopping the mechanism and looked over toward the western runway a few yards away. A biplane with the numeral "2" painted conspicuously on the fuselage and the lower wings had already been wheeled into position. Its propeller was whirling; its crew ready.

The announcer barely had time to say "The Swedish Jaktfalk biplane on the western runway ready to leave," when the official starting flag dropped. The biplane raced down the concrete and thundered into the air on the trail of the Mexican ship.

And as the Swedish plane sped into the sun-brightened east, another competitor was prepared to leave from the central runway. With a flash and a roar, it was gone. One by one, from first one runway and then the other, ship after ship took off.

Sandy watched, almost hypnotized by the steady procession. He held the camera unused at his side. His eardrums ached with the never-ceasing roar of accelerated engines. Bill hadn't come back. The Scarlet Stormer was being left behind. The race was going on without them.

In No. 9 position went Sam Weir's Thunderbolt. It was a fast biplane with an inverse wing stagger, streamlined landing gear, and retractible wheels. The official numeral "9" showed plainly against the bright blue of the ship. In its soundproofed cabin was its pilot, Cash Gardhouse and a mechanic. Persistent rumor had whispered of the enormous speed possibilities of the

Thunderbolt. Cash Gardhouse had boasted that, although he never expected to be forced to let his ship out, if the necessity did arise he would be able to whip his machine to an unheard-of speed. His statements had been taken with a grain of salt.

After the Thunderbolt went a high-speed, high-wing French Bernard. Then another and another. Otto Yahr's two-engined, low-winged monoplane, the Dragon, got away in the seventeenth position. Then an English ship, an American, a Dutch, a Canadian, a Soviet, a Spanish, another American—all without a hitch.

The east was pin-pointed with diminishing black specks outwardbound across the rolling Atlantic with faraway Lisbon the first port of call. Experts had predicted excellent weather. If the take-off was delayed, they had warned, the racing machines would probably run straight into a bad storm area.

Twice Sandy visited police headquarters in the control building. The police were frankly baffled and at their wits' end. Bill Barnes had simply vanished off Long Island.

AND THEN came the first accident to mar an otherwise perfect get-away. An Italian racing monoplane, heavily loaded, roared away down the western runway in the thirty-second position. The throttle was wide open; the speed was increasing. The pilot endeavored to bounce the ship into the air and failed. The end of the runway was streaking toward him.

He stuck to his job with indomitable courage, gambled everything in a last supreme effort to get his machine off the ground. He failed. The powerful machine thundered off the end of the runway, staggered into the air, and then plunged far beyond to the ground. There was a terrific crash, a sheet of flame forty feet high.

Both the pilot and the mechanic were thrown free. They lay where they fell. The alarm siren screamed. Motorcycle police tore across the field. The waiting ambulance streaked to the spot, followed by fire equipment. The injured men were speedily placed in the ambulance and rushed away.

Fire apparatus concentrated on the blaze and made little headway. In a matter of minutes the expensive racing machine was reduced to a twisted framework.

But even the crash was handled with firm control, and the steady stream of departing planes went on with scarcely a pause.

Sandy stood in front of the hangar and dug his finger nails into the palms of his hands. He heard the announcer's voice broadcast that competitor thirtynine, Bill Barnes, had not yet returned. An Australian plane, the Kangaroo, marked with the numeral "40," rushed away down the central runway and into the air. A half sob came from the boy's lips. The Scarlet Stormer should have been taking off at that moment. Bill—where was Bill? If he would only return—there was still a chance of winning—a slim chance—

The remaining few planes got away quickly. The crowds began to disperse. The Sky Queen had left the scene and headed away into the north. The show was over, and the Scarlet Stormer was out of the race.

In despair Sandy went over and spoke to the race officials. His freekled face was haggard and drawn, his eyes reddened as he made his request. It was granted.

"Certainly!" said one of the judges.
"If Mr. Barnes shows up he can get
away any time he wishes; but there
would be little sense in that. He
wouldn't stand a chance—now."

Sandy thanked them and went back. That was all he wanted to know. It gave him some hope to which to cling, no matter how slender it was.

IT WAS TEN o'clock in the morning when Sandy climbed into the Scarlet Stormer and radioed the doleful news to Bev in Lisbon. His conversation was short and to the point. He signed off and remained seated in the pilot's seat.

His eyes went unseeing over the packed instrument board. A knife seemed to drill through his heart. The bulletlike machine should have been throbbing under him at that moment, its pointed nose headed across the Atlantic. He put his hands over his face and bent his head. For the first time since he had been very small he found himself on the verge of crying.

"Mr. Sanders," Martin's voice sounded from the hangar door. "Some one to see you, sir."

Sandy straightened up and saw a State trooper crossing the hangar floor. His heart leaped. Quickly he swung himself out of the cockpit to the ground.

"You Sandy Sanders?" the man asked.

"Yes. Is there any news?"
"Any news about what?"

"Bill Barnes—have you found him?"
The trooper shook his head. "Don't know anything about that. I just found something that belongs to you."

Sandy's heart skidded down to the pit of his stomach. The trooper was cligging into a pocket. He pulled out a small book and handed it to the boy.

"I found this. Got your name on it. Saw it lying on the other side of the field. Yours?"

Sandy's eyes were wide. It was his red-leather memo book—the one he had given to Bill. Across the front was lettered: Property of Sandy Sanders.

"Yes, it's mine. Thanks," he managed to say.

The trooper left.

Sandy's fingers were shaking. Bill had had the book. Perhaps— He turned the pages quickly. There was a message.

Scrawled in pencil on an inside sheet he read:

Held prisoner on dirigible Sky Queen. Heading for Newfoundland up coast. Follow in Snorter and attack, Will give me chance to get chute and jump. You land. Pick me up. Throwing this out as we leave field. First chance. Hope it gets you. Keep quiet about this. Luck, peewee!

## V-THE SRY QUEEN

IT WAS as if a bucket of ice water had been hurled in Sandy's face. He straightened up. His eyes stared at the words. Bill!

And then the boy went into action. Bill's written warning to use caution forced him to stifle his excitement in front of the mechanics. He brusquely ordered out the Snorter. It was parked in the rear of the hangar behind the Scarlet Stormer fueled and ready to leave.

Sandy darted back to the small office. He pulled on his flying clothes. His thoughts were racing. Bill held captive on the Sky Queen! The dirigible had been floating placidly over the field during the night and early that morning. No one had suspected it.

The amphibian was wheeled to the apron. As he closed the zipper of his white flying suit and buckled on a seat-pack parachute he heard the twelve hundred horse power Diesel engine boom. There was still a chance to get into the race. He had to rescue Bill. Attack the dirigible. He grabbed a white cloth helmet, sprinted for the door.

Outside Martin was waiting beside the long streamlined fuselage. The three-blade propeller was lost in a silvery sheen. One of the mechanics was in the front cockpit, jazzing the engine in furious bursts. "All ready, sir!" the head mechanic yelled above the roar. "Ammunition counters filled. Fueled to capacity."

"Swell!" Sandy moved closer, put his lips close to Martin's ear. "Get the Scarlet Stormer ready to move. We may be still in the race. Don't talk about it."

He gestured to the man in the cockpit. The fellow hoisted himself out. He dropped down on the far side as Sandy climbed nimbly up. Fatigue had been swept suddenly away. There was a chance.

His eyes swept over the instrument board. His left hand found the control stick. His feet jammed on the rudder bar. A chance—the temperature was mounting rapidly. The powerful engine was bellowing.

The boy waited, then with a wave of his hand, released the brakes, gunned the Snorter off the concrete, and raced away to a lightning-fast take-off.

He was crouched forward in the cockpit. A chance to get back into the race—a chance to rescue Bill. He banked the long ship around steeply to head into the north. Parker Field spurted away to the rear. Here at least was action. His fingers tightened on the firing trips. The two synchronized machine guns chattered out a trial burst of lead and tracer. Attack the dirigible. His eyes were shining like two stars.

The air-speed indicator swung past one-eighty to two hundred. It held steadily at two-thirty. Sandy held the stick back. The altimeter crept up. Long Island flowed under him. The Snorter had twenty thousand feet when it sped high over Bill Barnes' private air field. Montauk Point slipped away. He was out over the open ocean.

The Sky Queen couldn't be far ahead. He had well over triple its speed. It would only be a question of minutes. If she was making straight for Newfoundland he couldn't help but sight her

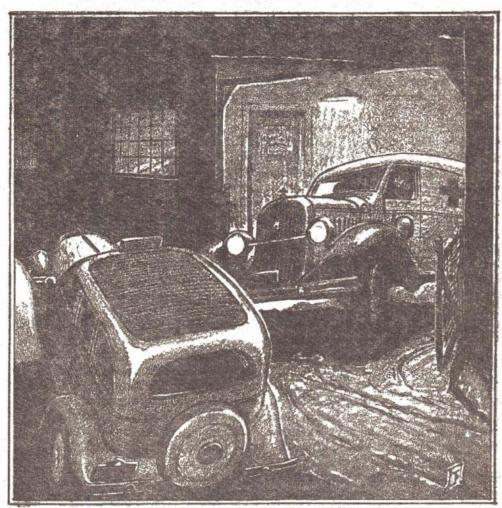
**BB-2** 

soon. His high altitude would help him avoid detection. Bill would be held somewhere in the cabin gondola. How he was going to effect an escape by parachute Sandy didn't know, but he would obey Bill's instructions to the letter.

His young face was tense. His eyes

The rising sun had painted it a silvery sheen and the glare came up to hurt his eyes.

The abductor's plan of holding Bill captive on the dirigible and keeping it constantly within sight of the air field had been clever. The Sky Queen had



The careening ambulance swung over on two wheels.

squinted through the hair sight in front.

Once he saw that big gas bag in front of him he would dive to pump round after round of flaming lead into it. But supposing Bill failed to get that chute? And failed to jump?

The Atlantic was spread out like a great smooth blue blanket beneath him.

been hanging around for days. People had become used to seeing it.

There was still a chance to get back into the race if he could rescue Bill. Many hours had been lost. The Scarlet Stormer was fast, but was it fast enough to overcome the terrific handicap of loss of hours?

**BB-3** 

34 BILL BARNES

Sandy's eyes searched the skies ahead. Far over the horizon he thought he saw a speck of black. His eyes narrowed, and he leaned forward, squinting. It was directly ahead. He pulled the Snorter up to a higher altitude and left the throttle wide open. The powerful machine was thundering ahead at a terrific rate. The speck grew larger and larger. And he knew then that he had sighted the Sky Queen.

The plan of attack again swirled through his mind. He had his misgivings, but he couldn't hesitate. Attack the dirigible. "Will give me chance to get chute and jump. You land. Pick me up." The attack of the Snorter would be unexpected. It would cause consternation and excitement on board the Sky Queen. The captors would be thrown into a panic by the attack. Then Bill would act.

The dirigible showed plainly now. Sandy worked his way higher. The air was rarer at that altitude, and he found it hard to breathe. He stuck it out. It wouldn't be for long and surprise would mean everything. He was at a much greater altitude than the dirigible. The Sky Queen was wallowing along at five thousand feet. He was well over twenty thousand.

He waited, tense and eager. Filmy clouds streaked between him and the big gas bag below. He was within three miles of it when he drew in his breath sharply and shoved the stick forward.

The Snorter dropped its nose. Sandy eased back the throttle. The amphibian was diving. He kept the miniature size of the gas bag dead on his sights. It grew larger and larger. He could see the sun shining on the fabric covering of the big bag; he could see the matchlike gondola in the bow of the giant craft and the engines' nacelles.

His fingers hovered over the gun trips. His mouth was a grim line. A sudden hatred of the enemies who had captured Bill welled through him. His thoughts were incoherent and racing. If he could only get Bill away from the flying prison there might be a chance that they could get back into the race and somehow catch up with the others.

The Sky Queen was drawing nearer and nearer. Sandy's fingers, tensed and motionless over the trips, seemed like talons of a bird of prey about to strike. He waited. He saw a man's head come out of a gondola window. 'He had been observed. It was now or never.

His fingers clamped down on the trips. Streams of fire and smoke drilled out from his guns to streak down into the enormous bag of the Sky Queen. The lines of fire went into the top of the bag. Sandy kept his fingers on the triggers until ahead of him he could see nothing but the great gray envelope. Then he jerked back the stick and zoomed, barely in time to escape ramming the dirigible head-on.

He threw his ship around in a mad bank and returned to the attack.

## VI—HEAD-FIRST

BILL BARNES, world-famous pilot, sat in a room in the rear of the cabin gondola of the Sky Queen. The room was small. Two small portholes in the metal sides let in the only light. From outside came the steady drumming of the engines. His two guards eyed him closely.

"But why Newfoundland?" Bill asked lazily.

The tall man leaning against the metal door adjusted the gun in the pocket of his stained overalls and sneered.

"You'll find out soon enough," he replied.

His face was lean and a two-days' stubble blued his jowls. The white straps of a parachute harness showed clearly against the khaki.

"You ever hear of the Green Death?"

Bill's keen blue eyes narrowed—so
that was it. "I've heard of it, of course,"

he answered. "I don't get the connection."

A second man was seated on a camp stool across the cubicle. He also wore a parachute strapped over a dark, unpressed suit. A white fedora was pulled down over his eyes. He held a heavy automatic loosely in his lap. He stared across at Bill.

"Doc wants you to experiment with," he said. "He ain't satisfied with the color. Wait till you see doc. He's a nice gentle little guy."

They both laughed.

Bill's expression didn't change. Ever since he had regained consciousness to find himself aboard the Sky Queen he had been constantly on the alert for a chance to escape. But nothing had presented itself.

The only break he had had was a short interval of being left alone. He had instantly utilized it in writing a note to Sandy and throwing it quickly out of one of the small portholes.

He had not been a second too soon. Two armed guards had returned in the next second. He hadn't been left alone since. And they had watched him like hawks, guns ready for use.

That night, after he had come to himself, his captors had boastfully related the details of their clever coup—how he had been whisked away in the hijacked ambulance and taken aboard the ground-scraping dirigible by a rope ladder. They had shown him the lights of Parker Field below and later had forced him to listen to radio reports of the search.

He hadn't slept any. And with the dawn he had watched the racing planes leave. That had been hours ago. When preparations had been made for the Sky Queen's departure, his chance had come. Sandy's memo book had gone overboard with a prayer. If Sandy did attack, Bill had a chance—a fighting chance. All he wanted was one moment's distraction.

"Yeah; you're all washed up, Barnes," said the tall man. "That'll teach you to get in the boss' hair."

Bill was instantly alert. There was one thing he wanted to learn definitely—who had engineered his capture. And the man's statement seemed to bear out Bill's idea—Sam Weir. He had got in Weir's hair, repeatedly.

Bill nodded his head dismally. "Yes. Sam Weir's a bad man to buck. I should have known better."

He saw a quick look pass between the two men. There was silence.

The seated man shrugged. "Weir's making sure of you now. You've cost him plenty. With you out of the race the *Thunderbolt* will win, O. K. A hundred grand and doc gets you. You'll look swell as a green stiff."

Bill's mind was milling. The Green Death had originated through this gang, through "Doc," whoever he was.

"Why did those three men get the Green Death?" he asked quietly. "They were all ex-members of the border patrol."

The tall man's face went livid. "You talk too much. You—"

A hearse shout came from outside in the forward part of the gondola. Bill's blood turned to fire. He heard the swelling roar of an airplane engine above the steady drone of the dirigible's motors. The tall man jerked open the door. Some one outside yelled.

"Get out here! We're being attacked!"

There was the sound of a gun firing.

THE TALL MAN went out. The door slammed. The other guard's eyes swerved in alarm after him. Bill came out of his chair as if shot. His right fist swished up. Iron-hard knuckles caught the guard under the chin even as he reached for his gun. The airman's left smashed into the side of the man's cheek. He went down like a

BILL BARNES

poled ox. Bill was over him. He rapidly unbuckled the parachute harness, jerked it free and transferred it to his own figure.

Sandy had arrived. There wasn't a second to lose. His break had come. He seized the unconscious guard's automatic, stepped over him to the door. For a moment he hesitated and then, sucking in his breath, yanked the door open and threw himself out, gun up.

He had a flashing impression of the crew's crowding to one side of the gondola. A submachine gun was yammering. Revolvers barked. The air was acrid with powder. Windows were open. He hurtled across the cabin, left his feet in a wild lunge straight for an open window. He heard some one shout. A revolver crashed. Bill went through the opening like a projectile. A bullet whined past him, and then he was falling headlong for the open Atlantic below.

He was spinning, head over heels. The Sky Queen and the sun-coated water pin-wheeled. The dirigible rushed away. His ears howled. He saw the blurred image of the Snorter in the wild merry-go-round. His searching hand found the 'chute ring. He tugged. His heart was against his teeth. It seemed like an eternity before he was jerked erect as a cannonlike report boomed above him. The 'chute had opened.

He looked up. The great white umbrella of silk blocked his view of what was taking place above. His eyes were alive. There was a chance now to get into the race. More than five hours had slithered by since the last plane had left Parker Field, but there was still a chance for the Scarlet Stormer. He had to get to it as fast as possible.

His ears cleared. He heard the thunder of engines overhead; the shrill whining of the Snorter as it pulled up; the steady ta-ta-ta-ta of machine guns. Bill's gaze went to the water below. He was far out over the Atlantic. The surface was calm. Sandy wouldn't have any difficulty in landing.

And then, horror sent him rigid. He saw a biplane streaking low over the water below. And even as he spotted it, the machine zoomed straight at him. Streams of lead and tracers spewed from its two stationary guns.

BILL was absolutely defenseless—a perfect target. The biplane tore up at him, closer and closer. The two guns were chattering continuously. In a second the machine would be within range. With both hands he seized the shroud lines on one side and jerked them to him. One half of the parachute collapsed. He was hurled suddenly downward in a side slip. The streams of smoking lead struck past him. His sudden maneuver had fooled the biplane's pilot. The machine hurtled past before the pilot could change his direction.

Bill exploded his breath. He had missed death by inches. Even if the bullets had failed to pump into his body they would have perforated the silk umbrella if he hadn't jerked the 'chute away. And the smallest hole would have ripped it wide open by the force of the air. He had escaped for the moment, but he knew the enemy biplane would return. And he still had five hundred feet to go before he could reach the water.

He had released his grip on the shroud lines, and his sudden increased descent had been checked. But what was happening overhead? Would Sandy spot the sudden appearance of the enemy biplane and come in to the attack? Again Bill jerked the lines in. The parachute teetered over. In that brief moment he had a glimpse of the sky above.

The enemy biplane was coming around in a stall turn. Directly above it was the dirigible. Smoke was pour-

ing up from its bag. Tongues of fire raced along the sausagelike envelope. Sandy had set the Sky Queen on fire. As the biplane came up on its nose, stalled and came over, the pilot saw the Snorter amphibian. It came tearing around from the other side of the big bag, straight at the biplane.

The action was in split seconds. Bill had to release the shroud lines to check his fall. Again he drew them back. He saw that Sandy had attacked the biplane and caught it napping. Ribbons of smoke poured from the amphibian's

guns into the enemy machine.

The biplane zoomed wildly. Horrorstruck, Bill went tense as the biplane, screaming straight up to get away from the Snorter, crashed full into the falling dirigible. There was an explosion—a burst of flame.

Again Bill righted his careening 'chute. His heart was in his mouth. The last few minutes had been packed with blazing action. Both the dirigible and the biplane had been wrecked. He was near the water now—within fifty feet. His hand went to the buckle. He would have to get out of the harness and dive when he came nearer. If he landed in the 'chute he would undoubtedly get tangled in the mass of shroud lines and not have a chance. A balled lot of wreckage that had been the biplane plummeted past a bundred yards away. It hit the water with a crash.

The view above was blocked. He didn't dare risk sideslipping the parachute again. The blue water danced closer. He looked up and saw a red glow penetrating through the white silk. The dirigible was on fire. Flaming bits of débris sped past him. And then with a gasp he saw a speck of scarlet appear on the billowed silk above him. An ember had fallen on the parachute. It wouldn't last a second:

Like a madman he unbuckled the harness. The crimson spot spread out —a tongue of flame appeared. He

threw himself clear as the whole umbrella was suddenly swept by flame. He jackknifed his body, forced his head down, put his arms straight in front of him, and dived for the water.

Involuntarily he closed his eyes. He sliced into the ocean. The shock of the impact and the coldness of the water numbed his body. He struggled to the surface. As his head came up, he looked up and gasped in dismay.

The entire great bag of the dirigible was in flames. And the whole flaming mass was plunging straight down at him. In sheer desperation he struck out blindly, swimming for his life. He cast a glance upward. The mountain of fire seemed to be following him. It would fall right on him. His eyes were bulging. There wasn't a chance—

And then he saw the Snorter come tearing right under the flaming mass. It hit the water hard, bounced. The engine roared. Like an arrow it sped straight across the calm surface toward him. Would it be on time?

Bill treaded water and raised a hand in a frantic signal. He saw Sandy's helmeted head in the front cockpit. It was a matter of seconds. The flaming dirigible was within fifty feet now. The Snorter's engine blasted in his ears, smothered the ghastly crackling of the falling inferno.

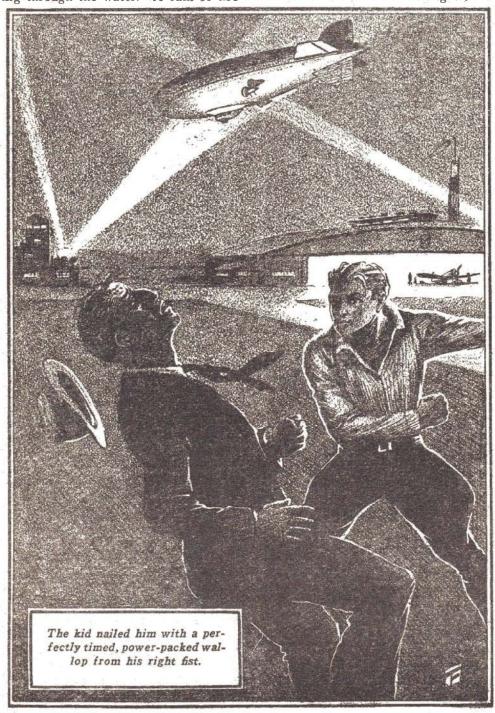
SANDY handled the machine with inspired skill. It was the only thing that saved them. The Snorter's right wing passed over Bill—the right pontoon grazed his shoulder. His hands went out, grasped for a hold. He pulled himself up on the float and yelled a hoarse O. K.

Sandy threw the throttle wide open. The amphibian streaked over the water. Bill shot a quick glance over his shoulder as he clung desperately to the float. Water pounded in his face, drenched him, battled to tear him from his precarious perch. The flaming Sky Queen

was upon them—was only a few feet above their heads.

The Snorter was racing madly, slashing through the water. A rain of fire

cascaded down. It would be nip and tuck. The burning wreckage seemed to graze the widespread wind and then, with a bellow of the Diesel engine, the



amphibian fought itself free and away from the inferno.

The flaming mass barely missed the tail structure. It hit the water with a terrific hiss. Steam shot up. The air was red-hot. Bill hung on, his muscles aching. They had escaped by inches. The whole ocean was a sea of fire. The mammoth Sky Queen lay half submerged, a broken, burning skeleton.

Sandy didn't close the throttle until they were a quarter of a mile away.

Bill lay sprawled on the top deck of the pontoon. The crashing volume of water that flowed over him lessened as the plane slowed down.

"You O. K., Bill?" came Sandy's anxious voice.

Bill spat brine from his mouth and shook his ears clear. He eased back, gripping the landing strut, until he was past the trailing edge of the wing and stood erect.

"I'm all right, kid." Bill climbed up on the wing, steadied himself and gripped Sandy tightly by the hand.

"Thanks, peewee," he said. His eyes swept over the freckled face of his young pilot. "You saved my life."

His grip tightened. The two men's gaze interlocked and held. Words were useless.

Sandy took his hand away and half laughed. "Gosh, I'm glad to see you, Bill! I never thought——"

Bill's eyes swept back to where the wreckage still blazed. If any of the crew had jumped they had been consumed in the falling inferno.

"Get into the back seat, kid," he ordered crisply. "We're still in the race. We got to get back to Parker Field pronto."

Sandy slung himself over the sliding hatch to the rear cockpit. Bill climbed hurriedly into the seat Sandy had vacated. He opened a locker, jerked out a helmet, and pulled it over his mop of soaked, blond hair. Quickly he inserted

the plug in the radio and threw over the switch.

His hand fastened on the control stick. He shoved the throttle open. The powerful Diesel broke into thunder. The Snorter ran forward. The water thumped on the under side of the stepped pontoons. And then it fell away and the machine was off.

Bill headed south and pulled the stick back. The sooner he returned to the field the better chance he had of ever catching up.

"Sandy!" he said into the microphone.

"Yes?"

"The Scarlet Stormer ready to leave?"

"Yes. Martin's got instructions. I asked the judges if it was O. K. if you started late. They said sure—but they didn't see any sense in that."

Bill snorted. "We'll have a chance. The Scarlet Stormer has plenty of speed. All our hard luck may be over now, peewee."

But their hard luck was just beginning. Two hours later as they raced over Long Island, nearing Parker Field, Bill peered through the windshield and his blood ran cold. Two biplanes were ahead of him. And even as his eyes identified them as the same type of machine that had attacked him in the parachute, he saw them dive headlong for the field below. He knew, in that instant, that they were after the Scarlet Stormer. And their wing racks were loaded with bombs.

## VII-IN THE RUNNING

THE HANGARS, that line Parker Field on three sides, have large white numerals painted on their rounded roofs. No. 43 marked the Scarlet Stormer's shed. The raiders would experience little difficulty in finding their target. Fortunately he had a superior altitude over them.

Bill shoved the stick down. It would be only a matter of minutes before the deadly missiles began to fall. The crew of the Sky Queen must have broadcast a radio alarm before disaster overtook them, and Sam Weir had ordered out the two biplanes to nail the Scarlet Stormer. Bill's escape would gain him little if his machine could be destroyed.

The amphibian was roaring down toward the field. It lay a mile ahead. The two biplanes swam closer and closer to him. He heard Sandy saying something over the telephone, but paid no heed. His mouth was a hard gash across his tense face. His eyes glittered along the gun sight. There wasn't a second to lose. He would have to destroy both ships if the Scarlet Stormer was to be saved. The enemy were resorting to desperate measures to keep him out of the race.

And then a gasp of dismay was wrenched from his lips. Far below he saw that the Scarlet Stormer had been drawn out on the apron. It made an ideal target. The sight shot acid into his veins. He pushed the stick farther. The Snorter's nose dropped down until the machine was almost in a vertical power dive.

The two planes ahead were diving at a lesser angle. Bill's speed was terrific. He was gaining yards on them by the second. He saw one bomb drop; saw a geyser of dirt kick up from the middle of the field. The Snorter raced in closer. His hands clamped down on the gun trips as the fuselage of one of the machines came across his sights. His speed was too great for accuracy in shooting, but his luck was in.

The streaming bullets tore through the enemy ship. The torrent sieved the fuselage, drilling the pilot into a mass of lifeless flesh. The biplane held to its dive. Its companion leveled off abruptly and zoomed. Bill tugged the stick back. The whole structure of the Snorter groaned at the terrific strain as the big machine screamed cut of the full force of the power dive.

The Snorter leveled off. Down below in the field figures were running frantically. Bill got a fleeting glimpse of the wrecked biplane crashing with a burst of flame into the air beacon. Its bombs exploded in a terrific detonation.

Sandy's voice reached his ears: "Look out, Bill!"

He threw the ship over and sideslipped away as the second biplane came racing down again in a mad attack, its guns flame-tipped. A torrent of bullets pumped through the Snorter. The whole amphibian shook from spinner cap to rudder. The instrument board in front of Bill disappeared in a tangle of splinters and flying glass.

Bill was aghast. The second ship had caught him flat-footed. It went streaking past even as he straightened out his tottering ship. Horror surged through him. Flames began to appear from the engine of the Snorter. He grabbed the telephone microphone.

"Sandy! Jump! We're on fire!"

He realized that he was absolutely helpless. He hadn't a parachute. He would have to take the flaming machine down if he wanted to live.

The biplane was coming tearing back at them. Bill put his nose down, his face contorted. This was going to be a fight to the death. He couldn't leave that enemy machine in the sky. If he went down, the biplane would be able to take its time about bombing the Scarlet Stormer into fragments.

The flames from the engine housing were growing larger and licking back. Black oily smoke billowed into his face.

"Jump, you fool!" he roared at Sandy.

The boy's voice came back at him: "I'm sticking."

BILL HEARD the twin swivel guns of the rear cockpit break into a trial burst of firc. The Snorter was tearing downward. Suddenly, Bill kicked the right rudder, threw the stick over, and the amphibian was slung dizzily around. The enemy machine flipped over and raced away.

Sandy got a quick burst into it. The biplane banked around steeply and came tearing in to finish its victim. Again Bill kicked the rudder, threw the stick into the corner. The big amphibian skidded around. The cockpit was black with smoke.

In that instant the enemy biplane came across Bill's sights. His fingers jammed down on the trips. The two stationary guns yammered out their death streams. The two smoking ribbons laced through the enemy, raked it from stem to stem.

The pilot threw up his hands. Bill saw the horrible expression on his face. His mouth was open. A river of blood gushed suddenly from it. The biplane went into a tail spin and headed for the field below.

The Snorter was definitely on fire. Flames were gushing back now. Again Bill roared at Sandy to jump for his life. It was the only thing to do. He was forced to stick with his ship.

The cockpit flooring was blistering hot. He put the big machine into a side slip to try to fan the flames away. The machine was finished. Sweat poured down the ace's body. He fought the flaming craft like a man inspired. Black smoke blocked his vision. His goggles became coated with soot.

He got a slurred impression of the ground climbing dizzily toward the lowered right wing. He would have to stay with it—somehow. His cockpit seemed to be the center of the inferno. The ground was coming nearer and nearer. He couldn't take any time to make his landing a good one.

"We're hitting, kid!" he bellowed. "Get out fast!"

The thought of Sandy's sticking with him when he could have saved his life was impressed upon his brain. The kid was there. He was going down with the ship.

The ground was at the wing tip. With the inherent instinct that had made him the leading airman of the world, Bill righted his flaming ship. The undercarriage smacked against the ground with sickening force. The whole flaming machine was thrown up on its nose. It was poised momentarily, its fuselage silhouetted against the bright skies, held there and then crashed back.

Bill was thrown violently against the instrument board. His right arm, slung across his face, took the full force of the blow. The sudden lurch against the safety belt almost knocked the wind from his stomach. His face felt scorched. Flames gushed up into his face. He released the belt catch and went over the side as the flames roared into the cockpit. The machine was teetered over. The propeller was bent double; the undercarriage splintered and completely wrecked. The wing staggered drunkenly.

Bill landed heavily, fell to his knees. He was up in the next second, and whirled around.

"Sandy!"

The kid hadn't come out of the cockpit. The furnace had gutted the front cockpit and was racing back along the fuselage. Bill put his arm over his face and plunged straight into the smoke and flames. His breath came in great agonized gasps as he fought his way to the rear cockpit.

Sandy was slumped forward in the cockpit. A bruise welled up on his fore-head where he had hit the instrument board and been knocked out. Bill seized him by the collar and with superhuman strength jerked him clear out of the seat and threw him to the ground. He half fell after him. His senses were gone. His lungs felt scorched, his throat red raw.

THE FLAMES were reaching out for Bill as he threw himself away from the fuselage. He ran blindly, his eyes streaming with tears from the smoke. Sandy was lying where he had been thrown. Bill reached him, jerked him up, threw the boy over his broad shoulder and stumbled on.

He hadn't gone far when the whole burning mass of the amphibian exploded. The blast picked them both up and hurled them violently to the ground. Bill was half stunned by the fall.

He heard voices shouting. Some one hauled him to his feet. He blinked away the moisture from his eyes and saw the familiar face of Martin, the head mechanic. Two other men were dragging Sandy away. The air was smoke-filled. A rain of burning particles fell. The Snorter lay a twisted mass of white-hot metal.

Martin held him tightly by the arm. His face was aghast. "Mr. Barnes —" he began, his voice hoarse.

"I'm—all right," said Bill. "Get back to the Scarlet Stormer. Get her ready. We're leaving immediately—if Sandy's O. K."

But it took the field doctor ten minutes of careful examination in his office in the control building before he finally pronounced that the boy was O. K.

A surge of relief swept over Bill. They had both been lucky. Their superficial burns were treated. The contusion on Sandy's forehead caused by his sudden contact with the instrument board had swollen badly. The boy sat up on the cot and put his fingers experimentally to the bump. He winced in sudden pain.

"Something laid an egg," he said.

The doctor laughed. "You've got the luck of the Irish. It's a damn wonder you weren't both killed."

"I would have been," said Sandy soberly, "if it hadn't been for Bill."

"Then we're all square, peewee." Bill jerked his head toward the door. "Come on. We've got to step on it. We've lost enough time."

But he was destined to lose even more. Before he could get clear of the control building, police and race officials hemmed him in. The pilot's gaunt, bronzed face was dark with anger as they hurled questions at him. He turned to Sandy.

"Beat it for the hangar. See that everything's set. I won't be long. Get my flying clothes out."

The boy fled.

Bill faced his interrogators. He told them tersely what had happened since he had been abducted. He told them everything with the exception of identifying the man who had been responsible for the whole ghastly reign of terror—Sam Weir. Now that the crew of the Sky Queen was gone he had no proof. And any accusation would automatically enmesh him in a web of red tape and detain him longer.

"If I'm to have a chance in this race I'll have to leave immediately," he added curtly. "I trust you'll be good enough to excuse me."

One of the race official's eyes went wide. "But, Barnes, you aren't seriously thinking of entering the race now?"

"Of course!"

The man's face showed his astonishment. "Why, man, if you leave now you'll run straight into a terrific atmospheric disturbance in mid-Atlantic. Meteorological experts agree on that. The others just missed it. It would be suicide for you to go now. Wby, the other contestants have *cight* hours' start on you."

Bill's eyes glittered. "And if I stay around here much longer," he said harshly, "they'll have more than that."

BILL turned deliberately on his heel and strode out of the door. No one stopped him.

Once outside in the open he broke

into a run. As he raced diagonally across the field toward the Scarlet Stormer's hangar he realized for the first time the devastation that had been done. The bombs of one of the enemy biplanes had exploded when it had crashed into the air beacon. The whole structure had been destroyed. A great hole lay where the beacon had formerly stood. Of the biplane there was no trace.

Fire apparatus was even at that moment fighting to control a stubborn blaze that had spread to three near-by hangars. Across the field, almost geometrically in the center of it, lay the twisted wreckage of the smoldering Snorter. And beyond, a group of mechanics were gathered around the crater that had been excavated by the only bomb dropped.

Bill put everything into his sprint. Every second lost would count against him. The odds loomed up almost overwhelmingly. The other contestants had more than eight hours' start. But once in the Scarlet Stormer and on his way, anything was possible. He had to win that race—everything depended upon it. It had been the focus of all his thoughts and actions for months.

The Scarlet Stormer was out on the apron. Bill's eyes swept over its bulletlike lines as he pelted toward it. A glow of pride in his powerful amphibian welled through him. The Scarlet Stormer stood on the concrete, poised for flight. Its scarlet-lacquered surfaces gleamed blood-red in the sun.

The double, Diesel power plant was throbbing. The two, three-bladed, controllable pitch propellers were lost in silvery disks as they whirled in opposite directions in the pointed nose. Martin was lashing his crew to greater efforts. The Scarlet Stormer was ready to leave at a moment's notice, but the head mechanic wasn't satisfied. Again and again he checked over the mighty projectilelike ship. Nothing could go

wrong. Time had given enough handicap without adding mechanical difficulties.

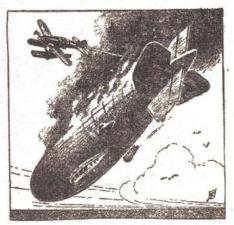
An ever-present camera man had set up his apparatus a few yards away from the gleaming, streamlined airplane and was cranking industriously. Bill saw Sandy standing beside him, his portable movie camera held up in front of his face. The boy saw Bill, clicked off his machine and lowered it.

"Clothes inside, Bill," he said quickly. "Everything else set."

Bill didn't stop. He hurled himself through the door. A complete change. of clothes had been laid out on a working bench. He stripped to the skin, left his wet garments where they lay and feverishly donned the fresh clothes. He pulled on a rabbit-fur-lined white overall flying suit, tugged a white helmet down over his head and buckled on a seat-pack parachute. He was trembling in his feverish desire for speed. He was in the running again; he had a chance now. Like a madman, he spun around and streaked outside.

Sandy was already seated in the rear of the small cabin. The shatter-proof hatchway inclosure had been slid back from over the pilot's seat.

"All set, Martin?" said Bill. "Right, sir!"



Sandy attacking in his Snorter.

BILL BARNES

A CROWD had collected. More figures were to be seen racing across toward the apron. The news had spread. Bill Barnes had returned. The master flyer was taking off in a belated attempt to catch up. A newspaper man was pushed aside by policemen as he tried to get a last-minute interview with the tall ace. Bill buckled the chin strap of his helmet, pulled amber-tinted goggles down over his blue eyes. He shook hands with Martin.

Bill swung back, released the wheel brakes and threw the throttle open.

"Luck, sir!" said the man. His grip

"Let's go!" he answered and his heart quickened with excitement.

was bone-crushing.

The sleek plane ran forward as the twenty-four-hundred horse-power engines thundered. Bill's eyes swept from left to right. Everything was clear. The Scarlet Stormer picked up speed under the thrusts of the two slashing propellers. Bill twirled a small crank. The wing flaps came down. The wheels in the long, streamlined pontoons spun across the turf. Bill's eyes were bright. They were getting off at last. He eased back on the control column and the heavily laden Scarlet Stormer took to the sky.

"Thanks, Martin!" said Bill. waiting down at the Battery. We'll be

> The wing flaps were up. The amphibian gear rose smoothly to fit snugly into the grooves in the underside of the long fuselage. The all-metal gull The Scarlet wing was outspread. Stormer was a shimmering red bullet hurtling into the east—and into the race.

He turned abruptly toward the cabin.

# VIII—ROUGH GOING

A purple-faced race official came panting up, waving a fat envelope.

> eter flicked from ten thousand to fifteen. He eased the control to neutral and held his speeding ship on a level keel, keeping the bulletlike nose headed They were already out over the Atlantic. Long Island was rapidly dwindling in the rear. The air-speed indi-

cator showed two hundred and fifty.

Bill opened the throttle another notch.

The needle wavered past three hundred,

BILL'S EYES flashed from the in-

strument board to the chart course in

front of him. He held the Scarlet

Stormer to its steady climb. The altim-

'Your clearance papers, Barnes!" he shouted above the thunder of the engines.

> The ship was heavily loaded. The fuel tanks had been crowded full. The first control point was Lisbon, over four thousand miles away. And the handi-

Bill took the envelope and shoved it into his pocket. "Thanks!"

"Just got word," bellowed the official gasping for breath. "Thunderbolt and Dragon leading the pack. Been sighted six hundred miles out from the Arozes. You haven't got a chance, Barnes. You're just risking your life for-

Bill turned his back on him and swung up into the pilot's seat. He settled himself, thrust the inclosure tightly overhead, placed his feet on the rudder bar and plugged the wires from his helmet into the radio jack. He clicked over the switch that converted the radio into an intercockpit telephone and shot a quick look over his shoulder.

Sandy was sitting on the folding seat at the rear of the small, glass-topped cabin, his inevitable movie camera in his lap. He was wearing an overall white flying suit and white helmet. His tanned, freckled face contrasted with the white helmet. The boy shot him a nervous smile.

"Let's go!" he said into the microphone.

cap of nine hours had to be overcome. It was a gigantic task.

The bronzed pilot sat unrelaxed. They were late—almost hopelessly late—but they were on their way. At least they'd have a fighting chance of overtaking the others. The Scarlet Stormer had terrific speed in each of its mighty engines. With the fuel being used their speed would consequently increase.

It was three o'clock. From what the race officials had said, the *Thunderbolt*, with Cash Gardhouse at the controls, and Otto Yahr's *Dragon* would pass the Azores at about five o'clock, New York time. His eyes narrowed. If he did anything he had to beat out Sam Weir's *Thunderbolt*, no matter what happened.

Bill felt wind blowing on the back of his neck and swiveled around. Sandy had the hatch open overhead and was standing on his seat. He had his movie camera resting on the top of the glass inclosure, his eye to the sight.

"Sandy," Bill said into the microphone. "Forget that movie stuff for a minute."

The boy looked guiltily around and stepped down, closing the sliding hatch.

"I was just taking a few shots," he said into the microphone. "I gotta get a camera record of this trip, you know, Bill."

"Well, forget it for a second. See those two clocks?"

He pointed to two dials that were inset in the right wall of the cabin. Above one was a small plaque with: "New York Time—Eastern Standard." Above the one on the right was: "Local Time." Below both of them were small rectangular glass plates with the word "Friday" lettered on a roller behind.

"Sure!" said the boy.

"That's part of your job, keeping those clocks correct. Leave the New York time one alone. It's the other one you're concerned with. We're heading east. Every fifteen degrees' longi-

tude we cross, that clock must be advanced one hour. That is until we get to the international date line. We'll have to keep our time accurate. They have nine hours' or more leeway. We've got to slice that down. Understand about that clock?"

Sandy scowled. "Yeah; I think so," he said into the microphone. "Every fifteen degrees' longitude I put it on an hour."

Bill nodded and turned back, He threw over the radio switch and called Beverly Bates in Lisbon. As he repeated his call he saw that the horizon ahead was inky black—the storm area he had been warned about.

He eased back the control. If possible he'd get above it. The altimeter moved slowly to twenty thousand feet and settled there. The Atlantic lay like a great mirror under them. Far ahead on the other side of that ominous thunder wall were the other forty-odd racing planes.

Static erackled in his ears. He toyed with the controls and kept tip his monotonous: "Calling B. Lisbon—— Calling B. Lisbon."

"Bev-Bill Barnes-I'm-"

Bev's voice cut him off. "You, Bill!" The voice was sharp with surprise. "Where are you—what happened?"

Bill suddenly realized that he hadn't notified the pilets at the control points of his return.

"In the Scarlet Stormer, heading across the Atlantic. Should hit you three thirty New York time—eight

o'clock your time. Have everything set. Fuel, food, and oxygen tanks. Get that?"

"Got it!"

"Any news of the others?"

"Just got a despatch. Five ships have passed over the Azores. More sighted every minute. Thunderbolt and Dragon in the lead."

Bill's eyes glittered. The Thunderbolt and the Dragon—they were the ships to beat. He glimpsed Sandy leaning forward and twisting the hands of the local-time clock.

"O. K., Bev. Keep me posted. We're going to push through into the lead somehow. The *Thunderbolt* and the other leaders should hit Lisbon around one thirty to-morrow morning, your time. If luck's with us we'll be there six and a half or seven hours later. If we can do that we'll pick up two hours and a half."

"Good! You know about that storm area ahead of you, Bill?"

The pilot's face was grim. The blackness ahead was racing to meet them. He saw violet lightning stabbing through the churning clouds.

"Yes. It's dead ahead. Going to try to get over it-"

A roar of static deafened him. Bev's voice ceased. Bill closed the switch and leaned forward. He'd have to get more altitude. He worked over the device controlling the pitch of the propellers, eased down the wing flaps and pulled the control column back. The small efficient cabin was sealed up. He spoke to Sandy over the telephone:

"Switch on the oxygen when I give the word. We'll try to jump this mess ahead."

The Scarlet Stormer's nose was up, its mighty engine laboring, with the help of propellers and flaps, to draw the heavily loaded machine higher and higher. And even as the altimeter needle ticked past twenty-two thousand

to twenty-three, the storm broke on them.

The struggling amphibian roared into blackness. The suddenness of the change shocked Bill. He switched on the indirect light over the instrument panel. A brilliant flash of lightning seemed to explode in his face. A torrent of gale-swept wind crashed with terrific onslaught against the glass of the cabin. The plane reeled drunkenly. The right wing hip shot upward.

Bill fought the controls grimly. Daylight had disappeared. They were in a world of jet blackness. He forced the Scarlet Stormer higher. They had to get out of the disturbance, somehow. The wind was lashing against the windshield. The air in the cabin was getting thin.

"The oxygen!" he shouted to Sandy. The boy switched on a knob.

The altimeter held at twenty-four thousand feet. Perspiration streamed down Bill's face as he struggled to keep his wavering ship on an even keel. The warning that one of the officials had voiced came back to him. Meteorological experts had predicted a bad storm area, and they were right in it.

The angry storm clouds were cascading rain. Lightning struck through them repeatedly. The upper regions were an inferno. It was useless to struggle to get the heavily laden ship to fight for more altitude. They weren't making any headway. Fuel was being burned rapidly. There was plenty, but anything might happen. He made up his mind, leveled off and eased the control forward after adjusting the wing flaps and the propeller pitch.

The Scarlet Stormer roared down through a seething hell. The storm increased in violence. Hail struck violently against the crimson ship, beating a devil's tattoo on the glass. The altimeter was dropping rapidly—from twenty-four thousand to twenty to fif-

teen

"Anything wrong?" came Sandy's shrill voice in Bill's ears.

"Nothing!" he barked back. "Switch off the oxygen!"

THE GOING was rough. fleeting moment the thought of turning back and endeavoring to skirt the storm swept through Bill's mind. He instantly rejected the idea. He had to get the Scarlet Stormer through, somehow. Time meant everything.

His eyes swept to the New York time. They had left at three o'clock. Five hours had swept past with incredible rapidity-eight o'clock. To live up to his time schedule he had to land at Lisbon by three thirty Eastern Standard time the next morning.

The altimeter fell lower as Bill kept the machine on a downward course, searching for a hole in the storm. At four thousand feet he leveled the ship off and nursed the throttle. He'd have

to battle straight through the snarling tempest. But there was no let-up.

Reluctantly Bill again dropped the pointed nose of the ship downward. The needle swept to one thousand—to five hundred feet. At the low altitude the gale had switched directions. came shricking from behind to propel the amphibian ahead. Even the rain seemed to be beating with less force.

Bill's muscles ached. He had been through an exhausting ordeal even before he had started on the world flight. Smudges of blue showed under his eyes. And now running smack into a grueling tussle with the elements on the first leg of the tremendous journey

might spell defeat.

He sat rigidly in his seat, his eyes sweeping the board; checking his course by blind-flying instruments, watching everything at once. He had to keep on his job, stay keyed up, wide-awake. The slightest faltering or error might send them dashing downward into the pounding ocean.

He stuck rigidly to his job of riding out the storm, his thoughts speeding in a tangled confusion through his brain. The sneering smug countenance of Sam Weir swept across his mind; the Green Death that had killed three men at Parker Field; the strange fact that each dead man had been at some time in his career connected with the border patrol. And Sam Weir had sentenced Bill, himself, to the dread plague at the hands of the mysterious "Doc" somewhere in Newfoundland.

Bill's face was grim. Sam Weir, having once again failed to wipe him out, would be growing desperate, especially if the Scarlet Stormer did manage to cut down the lead of the Thunderbolt. There was trouble ahead, man-made trouble. He would have to be eternally on his guard and trust no one but his own men,

The amphibian was streaking forward on the full force of the driving wind. It was not only adding to his speed but scattering the intense storm clouds. The furious onslaught of the elements was easing up. Bill shot a quick look over his shoulder at Sandy. The youngster was busily studying a large map and peering forward at the instrument board. Twice he moved the hands of the clock.

The red square on the radio panel suddenly gleamed. Bill threw the switch over hastily.

"Calling B.B.— Calling B.B.-

"B.B. answering-"

It was Bev. "Trying for the last hour to get you," he said. "I thought you were gone—Thunderbolt checked in here one thirty our time. swooped down ten minutes later. Both refueled, got their O. K., and took off by two o'clock."

Bill's eyes were burning. If the pilots of the two ships had only taken time off for sleep he might have gained a few hours. "They know I'm in the

race, Bev?"

"That's what's putting the spurs to 'em. Cash Gardhouse tried to pump me. Wanted to get your position. Looked all in. Twenty other ships have pulled in since. Most of the crews getting shut-eye. Third man in the getaway from here was the Canadian, Cyclone Taylor. He looks like a bet."

Bill's heart was pounding in his side. He leaned forward as if to give his streaking machine more power. He had to catch up with the others. He couldn't

afford to lose a minute.

"Have everything ready," he rapped into the microphone. "We won't stay there long. I'm going to try to stretch it to Bombay."

"You have to sleep sometime," sug-

gested Bev.

"Back in New York." They signed off.

AT ELEVEN THIRTY the rain stopped. Far above them Bill saw a dancing field of stars. A moon shot a silvery track across the wind-tossed waters. A strange feeling of isolation swept over him. He kept the hurtling machine close to the Atlantic to reap the full benefit of the driving force of the tail wind. The air-speed indicator hovered around three-fifty miles an hour. Ever since they had left Parker Field there hadn't been the slightest miss or splutter from the powerful Diesels. The whole machine was behaving like a thoroughbred under the storm's grueling test.

It was ten minutes past midnight when Bill saw lights ahead. He came erect in his seat. Sao Miguel—the Azores. An optional landing base had been established there by race officials as an in-between stop in the long hop to Lisbon. The harbor was brilliantly illuminated. Bill guided the Scarlet Stormer low over it. He saw by the landing lights that at least three planes had sought a haven there. It was impossible to see their identification marks.

As he gazed downward he saw a glimmer of light wink on and off from the darkness to the north of the harbor. In the next moment the amphibian had torn past and on into the night. But in that brief glimpse, Bill had caught the rapidly despatched message in Morse code.

Menace seemed to crowd into the tiny cabin. The nearer he raced to the leaders the greater danger threatened him. The route that lay ahead was foul with brooding mystery and sinister evil. The winking light had spelled out: "Barnes don't land, Murder."

He hadn't been able to catch the rest. No more was necessary. The full ominous meaning of his unknown ally's four words burned into his brain. Death stalked the course, lurked at every landing point. Murder was below.

# IX-THE LAIR

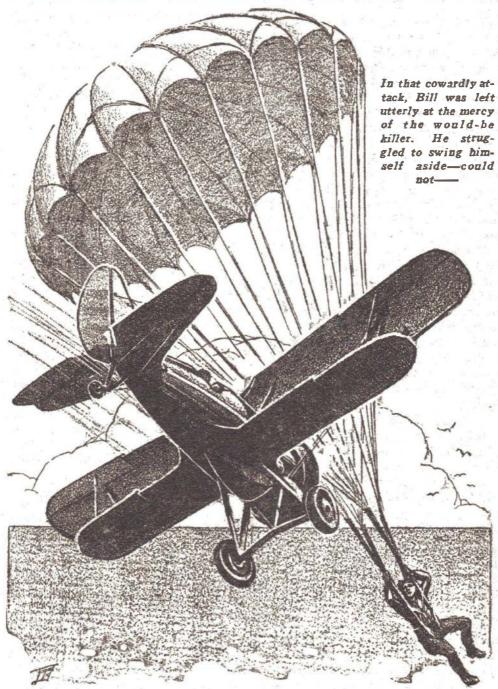
CHAN LO, deposed Chinese war lord, laughed deeply in his throat as he walked the matted flooring of his luxurious hide-out in the Borneo jungle. The long fingers of his narrow hands were intertwined behind his back like

squirming snakes.

His skin was saffron. Long black hairs drooped down from his upper lip. His mouth was a harsh gash in a harsh face. His teeth were broken and stained. The cunning of his race was in his irregular features. Wiry hair had receded from a high, polished forehead. His eyes were small black circles in slanting sockets. They swerved across the exotic room to settle on the short-wave radio cabinet against the wall.

From outside the small, one-roomed building came the distant drone of an airplane engine. Chan Lo stopped in full stride, turned and went rapidly to the doorway. His bare feet made no sound.

**BB**-3



Ragged trousers of duck covered the lower part of his body. Around his waist hung a leather gun belt. Heavy revolvers were slung in holsters over his right and left hips. His torso was

naked and gleamed with sweat. Muscles rippled under the saffron skin. Matted hair heavily swathed his barrellike chest. A red scar angled across the small of his back.

BB-4

He swept the hanging bamboo screen aside. Outside was a large clearing. A monoplane and a biplane were drawn back into a recess under the heavy trees that bordered the open stretch. Two yellow-skinned Orientals stood near by, their hands shading their eyes as they peered up into the sky.

The drone had welled into a roar. Chan Lo scanned the brilliant blue of the heavens until his gleaming eyes fastened on a high-flying biplane. It streaked high overhead. The roaring was abruptly stilled. The nose fell.

The plane circled downward.

The man in the doorway dropped his right hand to the heavy revolver hanging at his right hip. His eyes never left the descending biplane. It swung lower and lower. The shrill screaming of the wind racing around the struts could be heard below. The ship seemed to flick the tops of the trees at the south end of the clearing as it banked around. It swooped in for a fast, neat landing.

Chan Lo didn't move. His slanted eyes became gleaming slits. The pilot of the biplane opened the throttle and taxied his machine toward the spot where the two other ships stood.

The two yellow-skinned men went out to meet it. The engine was switched off and the biplane wheeled quickly under the covering of the trees. The pilot slung his legs over the edge of the open cockpit and headed directly across toward Chan Lo.

He was white and wore no helmet. Goggles were pushed up on his fore-head. A grimy white shirt and stained khaki shorts covered his body. He wore no stockings. His feet were incased in sandals. He stopped ten feet from Chan Lo and bowed deeply.

The Chinese looked at him, then turned and went inside,

"You follow, Sims," he said sibilantly. WHEN CHINA was torn by civil war and banditry, Chan Lo prospered. He was a powerful war lord. His coffers overran with loot. His rise was rapid—his fall was likewise. Only the timely intervention of the free-lance aviator, Otto Yahr, saved him from his enemies. The two escaped in the plane. A fortune in gold and jewels went with them.

A fabulous reward was placed on Chan Lo's head by the Chinese government. The threat of capture forced him to seek a hiding place in the wilds of Borneo. Otto Yahr remained with him.

Bitter thoughts of revenge stirred in Chan Lo's breast. He swore he would return to his native country as conqueror, and he discovered in Otto Yahr one man who could make his dreams materialize. The war lord had the money and the ambition; the Eurasian the brains and the guile. The combination was ideal for anything but peace.

Chan Lo and the ex-war ace talked and drank rice wine until they began to believe the fantastic plans that emanated from Yahr's fertile brain. The conquest of China would be only the first step. Japan would be next—and then the whole world.

It could be accomplished only, decided Yahr, by a superb air fleet. Their plans for gathering together such a fleet were vague until the round-the-world-air race came into being. In it Yahr saw a golden opportunity. The fastest, most modern airplanes were entered in the long flight. The route passed through Siam, not far removed from Borneo.

Their plans began to take shape. Some of the racing planes would be captured to form the nucleus of the conquering air armada. If the captured pilots fell in with the idea they would be allowed to join the cause; if they didn't they would be forced to join their ancestors. And the chief attraction and the main object of their endeavors was

Bill Barnes' Scarlet Stormer. It was scheduled to form the key plane in the future organization. With it once in their possession, duplicate planes could be made.

Otto Yahr, with Chan Lo's money, built a fast plane for himself to use in the race. His entry was not due so much to interest in the prize money as in his fellow competitors.'

The two mentally warped men spun a delicate web. Even before the race began one plane fell into their clutches. The Australian, Don Batten, flying his plane across Asia on his way to enter the race, was captured and his plane seized. The easy success proved intoxicating. The Scarlet Stormer would be the next. It alone would be prize enough.

And they and their few followers began to lay the snare that would lead Bill Barnes and his superamphibian into their possession.

THE AIRMAN, Sims, followed Chan Lo into the low building. The Oriental crossed the room and lolled back on a cushioned couch.

"Success has visited your mission?" he asked softly.

Sims stood in the middle of the room. The white man's face was pale and dissipated; his eyes bloodshot. His breath reeked of cheap whisky. He had been found by Otto Yahr in a dive in Singapore, down and out. His flying ability had won him a place in Chan Lo's band.

"The information you received was correct," he replied, his voice rasping. "The American, Sam Weir, had planned a murder trap for Bill Barnes at Sao Miguel if he should land there. I went to Singapore, as you instructed. There I arranged by wire for the American ace to be warned. Barnes went past the Azores without landing."

Chan Lo nodded. He stood up, languidly, his great arms hanging limply at his sides, his massive, bare chest expanded. His face was expressionless.

"That is correct. I know long since that Barnes fly to Lisbon. I speak not of that. I inquire if success has visited your mission?"

Sims' eyes widened. "My mission?

That—that was my mission."

The Oriental moved slowly toward the pilot. "I expect you back quick. You long time gone. Why?"

The airman shivered. Perspiration coated his pasty face. "I got drunk—in Singapore."

Chan Lo's mouth smiled, "Strong drink sometimes loosen tongue. You talk too much perhaps?"

"No! I swear. I talked to no one. The time passed. I was drunk."

The Chinese nodded and half turned back toward the couch. Sims relaxed in ill-disguised relief. Without a second's warning Chan Lo spun around. His powerful arms were wrapped around the airman with the speed of an attacking snake. His right hand grasped Sims' neck; his left arm held the man powerless.

A choked cry of terror came from Sims. Chan Lo went down on one knee. He wrenched the writhing white man's body over his bent other leg as if it were a rag doll. His right hand fastened on the airman's chin and forced his head back.

Terrific strength was in that hand. The head went back farther and farther. Ghastly sounds came from Sims' gasping mouth. Saliva drooled down. There was a sharp crack as the neck broke. The airman's eyes were glassy and bulging. His body went limp.

"You lie, you drunken dog!" said Chan Lo furiously. "You plot to sell my life for reward. Blood money—"

A SHARP CRY of terror came from the direction of the entrance. The Chinese looked up. A slave girl stood staring in the doorway, her left hand holding back the hanging bamboo screen. Her black sloe eyes mirrored terror. Wide loose trousers and a loose-fitting jacket of transparent crimson material covered her young rounded figure. Her small red lips were parted.

Chan Lo held the dead man in an iron grip. "Enter, my blossom," he said softly in singsong Cantonese. "Enter and see fate that befalls treacherous swine."

The girl took two timid steps into the room.

Chan Lo rose lithely to his feet. He lifted the limp corpse without an effort, swung it high above his head, and threw

it savagely across the room. The bulging muscles in his great saffron body rippled. The dead man crashed against the wall and fell to the floor. He lay in a pile, the disjointed head lolling at a grotesque angle.

Chan Lo turned to the frightened slave girl. "It is well for you to see reward of treason." His eyes glittered. "In our country there is great price on head of Chan Lo. That scum barter with my enemies while in Singapore, My spies watch. Nothing escapes me, I am all powerful."

The girl's round face was without expression. "Thou art all powerful,



Sandy smacked the Snorter down in that sea of fire.

O my master!" she said, her voice shaking.

one?"

The slave girl shook her head. Her hair was cut short and was blue-black. "I do not betray," she said simply.

"You are wise. I hide here until time to strike. Then I sweep enemies aside as I do that carrion on floor. Nothing can stop me. I will conquer world with new wondrous airplane weapon. Otto Yahr now speeding on wing of light here. With him race finest airplanes in world. We snare some, little blossom. Especially miraculous craft flown by American birdman, Bill Barnes. I save him from one fate so he fall into my hands. And you, little one, are to help me."

"I?" The girl looked at him in bewilderment.

Chan Lo's eyes swept over her tiny figure from the dainty silk-emboidered slippers to her pretty face. He folded his arms across his chest.

"Yes. You help trap him. You pretty China girl. You follow instruction to letter. You be attractive bait. You gain great reward if successful. I return to China as emperor, you go at side in silks as empress. All people kotow."

He walked slowly across the room, silently, turned and came back.

"In Bangkok, Siam, await Hassfurther, Bill Barnes' trusted birdman. He there to assist his master when great Scarlet Stormer alight. You go up there. You-"

A shrill buzzing sounded. Chan Lo whirled and crossed to the radio cabinet. Deftly he placed earphones over his head, plugged them in, connected a small microphone. He clicked over a switch and twisted a dial.

He spoke in staccato Cantonese as a shrill voice came to his ears: "Chan Lo hear you, Otto Yahr-"

"Good! Barnes far behind. Crossed

Atlantic successfully. Follow swiftly." The Eurasian spoke rapidly. "If all "You would not betray me, little goes well he will reach Bangkok Sunday. We must be ready to strike before he reaches there. You will have to use great care in handling his man, Shorty Hassfurther. He is a fighter. If possible get both him and his plane. It is a Snorter, a fast airplane, and will be useful in our plans. You understand everything?"

"Yes. And the American, Sam Weir?"

Otto Yahr cursed. "That is a difficulty. He has unknown plans to kill Barnes. So far he has been unsuccessful. His plane, the Thunderbolt, is a few miles ahead of me. I will speak to you again. No time now. Have to land soon. Our future depends upon your making no mistakes. We need Barnes' plane. If necessary he may be killed."

"I will not fail," replied Chan Lo. He clicked over the switch and took the earphones from his head.

### X—THE SECOND LAP

THE LOCAL TIME clock in the cabin showed eight o'clock Saturday morning when the Scarlet Stormer streaked high over the first control point at Lisbon, Portugal, Bill circled over the field and closed the throttle.

A warning brrrrrrr came to his ears over the headphones. A glass circle on the instrument board glowed bright red. In the next second the amphibian landing gear was lowered from the recesses in the fuselage. The wing flaps opened.

Bill's eyes were bloodshot. Every muscle in his body ached. He watched the field rushing up to meet him. Through his extreme fatigue his mind was hammering into his senses that the first lap was over. The Atlantic had been crossed. He couldn't let down now. He was far behind the others.

To have even a chance at winning he had to keep relentlessly plugging ahead. Sleep could come later.

He heard Sandy's eager voice coming over the earphones: "Golly, are we here?"

"We're here," replied Bill.

Things were beginning to blur before his eyes. He forced his vision to sharpen. A crack-up on the first landing would be swell!

"I must have gone to sleep," said

Sandy.

Bill raised himself in the seat and brought his great ship to a landing with scarcely a jar. They were on the far side of the large field. Across on the other side he saw buildings and hangars and a scattering of planes. He opened the throttle and taxied over.

His lips were pressed tightly together. Sandy had been asleep for the last four hours. It was as well. The boy would have to relieve him at the controls. They both had started the flight under a terrific physical handicap. Rest would be essential to success, but it would have to come while en route. The Scarlet Stormer, itself, would have no respite from the continuous grind.

Bill closed the throttle and nosed the ship up onto the concrete. He saw Beverly Bates immediately. The tall Bostonian came rushing through the crowd of mechanics that swarmed around the machine. Bill cut the switches.

"Gosh, Bill!" said Sandy. "You know what?"

"What?" His voice was lifeless.

"We made it in a little over twelve and a half hours. That's stepping. The New York time now is three thirty in the morning."

Bill nodded, reached up, pushed the sliding hatch back and hoisted himself up from the cockpit.

"Hi, Bill!"

He looked down. Bates' face was

shining. His right hand came up to grab Bill's hand.

Bill lowered himself to the ground and felt his legs give way. Bates caught him quickly.

"They feel like rubber," Bill said, gripping the side of the fuselage for support.

The Bostonian's arm tightened around his shoulders. "Ye gods, I'm glad to see you! I thought—— You made wonderful time."

Bill worked his legs. His head ached viciously, and a constant roaring filled his ears.

"Get her set to go again, Bev," he said. "We're leaving as soon as possible. How far are we behind?"

"Gardhouse and Yahr left here about one thirty. Didn't wait after filling up the tanks. Just reported to have passed over Crete. Well on their way."

Bill pushed his goggles over his helmet. The Dragon and the Thunderbolt were six and a half hours ahead. That meant that the Scarlet Stormer had chopped two and a half hours off the original nine-hour handicap. They were slowly creeping up on the leaders, but any lost time would see that gain wiped out.

Sandy had come down from the cabin and was standing taking movies as a fuel truck backed up to the Searlet Stormer. A small native wriggled past the guards who were keeping the crowds back and ran up to Sandy. He gave him something.

Bates let out a bellow and dashed back. He knocked a sandwich from Sandy's hand. The native dived into the crowd and disappeared. Bates took Sandy by the arm and brought him over to Bill.

"But what's the idea?" asked Sandy.
"It was probably poisoned." Bev's
face was serious. "I had food prepared
for you. One of the mechanics stole
some. He died an hour ago, and his
flesh was green."

Bill tensed. "The Green Death!"

His thoughts were furious. The horrible plague that had done its ghastly work at Parker Field was following the fliers. Deadly menace was closing in around the *Scarlet Stormer* and its crew.

But even the threat of destruction failed to stir him. He felt exhausted. He passed through all the rigmarole and red tape of the strict rulings of the race. He was signed in officially. Newspaper men boomed their flash powder. The constant roar of engines thundered in the air. Two other racing planes had checked in an hour previous to the *Scarlet Stormer*. They would be leaving soon.

Bates personally supervised the refueling of the oil tanks and the replenishing of the oxygen cylinders. Bill and Sandy had been shown to a large building reserved exclusively for the race pilots' use.

AFTER a cold shower that exhilarated them both, Bill and Sandy consumed a hot meal. The tall airman was downing his second cup of black coffee when Bates came up.

"Everything set, Bill," he said. "Don't you think you'd better get some sleep."

Bill drew a tanned hand over his mouth. "No. Sandy will spell me at the controls on the way to Bombay."

"You think you can make it nonstop? It's a hell of a distance—over six thousand miles."

Bill slid off the stool to his feet. "We'll have to make it—if the Scarlet Stormer hangs together. Come on, peewee."

Sandy slung his movie camera over his shoulder by the long strap and followed the two older men. His pockets bulged with food he had taken from the table.

"It's the *Thunderbolt* you've got to watch, Bill," said Bates. "Cash Gardhouse was boasting about its mysterious

speed when he was here. He said if any one pressed him he would turn on his extra speed and leave 'em flat."

Bill snorted. "He's got a fast boat there, but the *Scarlet Stormer's* got it trimmed a million ways. That's a lot of bluff—that extra speed."

When they came out onto the apron the local officials clustered around. Autograph seekers shouted for Bill's signature. He walked stolidly toward the Scarlet Stormer. The long flight had done nothing to change its sleek appearance. The morning sun glinted from the widespread gull wing.

Both of the other racing planes had taken off a few minutes before. Bill waited until Sandy was in the cabin.

"You should overtake most of the field in the next jump, Bill," said Bates. "A flock of 'em are landing at the optional field at Athens and Bagdad. There's a group of five or six keeping well up with the leaders. That Canadian flyer, Cyclone Taylor is right on the heels of the *Dragon* and the *Thunderbolt*."

Bill nodded. He'd overtake most of them or else go down trying. He shook hands with Bates.

"So long, fella!" he said. "Keep close to the radio. If anything happens I may need you."

Bates' fingers tightened. "Luck, Bill! Give her the gun all the way. Keep her tail up."

Bill grinned woodenly and swung up into the cockpit. He pushed the hatch closed overhead. The twin Diesels were running smoothly; the two propellers spinning. Everything was set. He took a deep breath. The second lap. On to Bombay. Six and a half hours to overcome. He released the brakes, shoved open the throttle, and waved his hand.

The Scarlet Stormer thundered across the field and climbed steeply into the sky. The amphibian gear rose into place. Behind Bill, Sandy was taking movies and munching at a roll. The landing field spun away under the empennage.

Bill kept the amphibian constantly climbing. He sat rigidly and forced himself to keep on going. Later he would hand over the controls to Sandy and endeavor to get some of the rest for which his whole body was pleading.

The irregular surface of Portugal and Spain unfolded as a great map. The Scarlet Stormer flew at twenty-two thousand feet. The double engines droned on and on. The noise was monotonous and soporific. Bill forced his eyes to remain open. Automatically he checked his course.

IN TWO HOURS the Mediterranean lay far below them, like a great blue mirror. They were on their way to Bombay, the second control point, on the second lap; they had to get there nonstop. The *Thunderbolt* and the *Dragon* had to be overtaken. The sixand-a-half-hour lead had to be whittled down.

Again he fought hard against the sleep that was dulling his senses. He looked down to see that the Scarlet Stormer was passing high over the two other racing planes that had left Lisbon just before them. He had passed some of the competitors at the Azores. Now two more. Gradually he had to overhaul the field until he got within striking distance of the leaders. If anything failed it would be the human element. The Scarlet Starmer would stand up. It had been tested and retested.

His thoughts wandered off. Sam Weir had made another attempt to stop them. The Green Death had broken out at Lisbon. If the poisoned food hadn't been stolen both he and Sandy might, even at that moment, be dead. A shiver shot up his spine.

Again the problem presented itself to his mind: Was there any grim significance in the fact that the men killed at Parker Field had been once members of the border patrol?

He never attempted to answer his own question. His head fell forward on his chest. His eyes closed. Unconsciously he shoved the stick forward. And the *Scarlet Stormer* dived.

The abrupt movement awakened him, in a cold sweat. He heard Sandy's voice yelling in his ear, and he fought the plane to an even keel again.

"Bill, I'll take her."
"Come on, then."

The hoy slid forward to the front seat and gripped the controls. Bill squeezed past him to the rear.

"Follow that route rigidly, kid. If nothing happens let me have three hours' sleep. But if there's anything out of the way, snap me out of it. Understand?"

"O. K." The boy's eyes were on the map case. The route was plainly depicted.

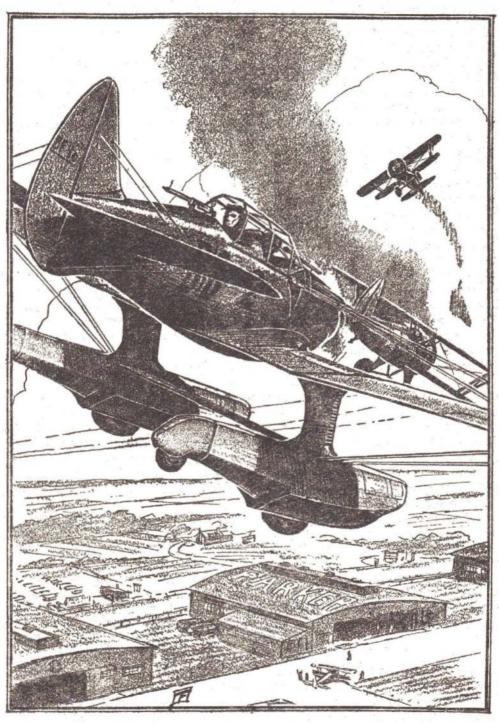
Bill tilted back the folding seat and managed to make himself as comfortable as possible. Sleep overcame him almost immediately. He lay back in a cramped position and dreamed that the Scarlet Stormer had been attacked by the plague and its scarlet coating had turned to green.

## XI-SAND

SOMETHING hit Bill hard on the side of the head. He came suddenly awake. He was piled up on the bottom of the cabin. Everything was pitch black, Horror brought his senses rushing back. He put out an experimental hand. The cabin floor was tilted up on a steep angle. He struggled to his feet.

"Sandy!" he yelled into the microphone.

He could vaguely discern the boy's form in the glow from the instrument heard. The air outside was a muddy black. There was no sign of the wing



With crazy daring born of desperation, Bill and Sandy lashed the Snorter into a wild, lead-slinging sky duel against bloodchilling odds, For the scarlet race ship lay in high danger!

navigation lights. The glass rattled as if under a machine-gun barrage. The

engines screamed.

Sandy didn't answer. Everything was confused to Bill—like a hideous night-mare. He felt the wires dangling loosely from his helmet and realized that his fall had jerked the plugs from their sockets.

Where were they? How much time had passed? What was happening? His senses were cloudy with sleep. The Scarlet Stormer heeled over even more. Bilk was thrown back against the side of the fuselage. There was no earth or sky. Everything had been obliterated.

He clawed his way up the sloping floor, connected the microphone and earphones. "Sandy!" he bellowed.

The boy's voice immediately sounded in his ears—agonized: "Bill! I've been trying to get you for—"

"What's 'happened?"

"Sand storm—five hundred feet up
—can't hold her—"

Bill fought his way forward. He gripped Sandy by the arm.

"Get back!" he thundered. "Let me have her!"

He seized the controls. The boy slipped under his arms and squeezed past. Bill slid quickly into the seat, his feet jamming against the rudder bar.

His eyes swept the instrument board. The altimeter was falling. Five hundred four—three— He snapped the safety belt around him. The Scarlet Stormer was reeling drunkenly. A cyclonic wind charged in from the side. In front of him he saw a wall of brown dust.

In that second his heart hanunered against his teeth. He had a flashing vision of lights directly ahead; of the shadowy outline of another airplane. Bill kicked the rudder and jerked the stick over. The Scarlet Stormer almost threw him out of the seat. He waited for the crash, but none came. The

amphibian threw itself over on its back. Bill was wild-eyed. It was a runaway plane.

Grimly he fought it as the altimeter needle went crazy. The plane roared over on an even keel. How many minutes passed before he gained control he never knew. He forced the lurching plane around to head into the wind, tugged back the control column. The engines were hammering evenly, The altimeter was ticking higher. The brownness seemed to be lightening.

"Where are we?" he rapped into the microphone. Sweat trickled down his face.

"Syrian Desert-heading for Bag-dad-"

Bagdad! Bill's eyes swerved over to the two clocks. He gasped in astonishment. The New York time showed two p. m. He calculated swiftly. It scarcely seemed possible—he'd been asleep eight hours.

He had the Scarlet Stormer definitely under control now, with the throttle yanked wide open. He felt dazed. The sudden awakening—the darkness—the sense of disaster—the near collision with the phantom plane in the sand storm— He shook his head groggily. It didn't seem real. And he'd been asleep for—

"Sandy!" he barked. "Have I been asleep for eight hours?"

"Yes, Bill." The boy's voice was shaken.

The altimeter was passing fifteen hundred and ticking higher. The swirling brownness had given way to the darkness of approaching night.

"Why didn't you snap me out of it long ago?" Bill said furiously.

There was silence.

"Everything was going swell," Sandy replied at last. "We passed a flock of ships. I wanted you to get as much sleep as you could. I didn't realize how late it was getting. I must have dozed off. I came to with the ship

out of control—and the sand storm. I yelled at you, but you didn't hear."

BILL'S eyes were thin. The kid's grim determination to give him extra sleep had almost wrecked them. Sandy had gone to sleep over the controls. The antics of the *Scarlet Stormer* as it plunged wildly under the violent sand storm had alone saved them.

Bill bit off the fiery stream of criticism before it reached his lips. Bawl out the boy for sleeping on the job when he himself had done the same thing earlier? Bill's face was grim. One of their foes on the long flight would be human exhaustion. They had had a narrow escape from destruction; next time it might be different. But, all in all, the long sleep had done him a world of good.

"Don't ever try to stretch things again, peewee," he said. "We've been damn lucky. Now you get some sleep; you need it."

"O. K., Bill. Golly, I'm sorry!"

The Scarlet Stormer was climbing steadily. Bill bent over the blind-flying instruments. He studied the maps of the region. They were fifty miles off their course. He pulled the ship around and headed southeast by south. Night had swept over the sky. The swirling sand had been left below. Stars blinked overhead.

He called Cy Hawkins in Bombay on the radio. After a wait and playing with the dials, he heard the Texan's drawl in his ears:

"C. H. answering—— C. H. answering—— That you, Bill?"

"Yes, Cy. What's the dope?"
"Where are you, Bill?"

Bill told him. "How're reports on the others?"

There was a burst of static, and Cy's voice faded. Bill strained his ears and vaguely made out that the *Dragon* and the *Thunderbolt* had been reported over

the Gulf of Oman, about eight hundred miles from the second control point.

Bill's eyes glinted. If everything went well the Scarlet Stormer would take another slice off the time handicap of six and a half hours. He inspected the local time clock. It showed ten thirty p. m. He figured quickly. Taking into consideration the advance in time every fifteen degrees' longitude they passed, the race leaders would probably land on Sunday morning around two thirty or three o'clock, Bombay time.

His fingers tightened over the control stick. He still had a terrific handicap to overcome. The slightest delay would prove fatal.

"How's the rest of the field, Cy?" he asked tersely.

"Haven't anything more detailed, Bill. Bunch of them grouped back of the leaders heading down the Persian Gulf. Five contestants are down at various points. You can check them off. Where do you plan to land here—the harbor or the field?"

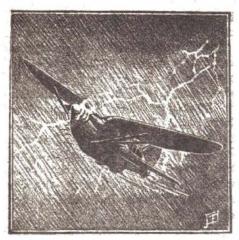
"The harbor," replied Bill. "Have everything set. We aren't going to stay there any longer than possible."

They signed off.

Bill looked back and saw that Sandy had already gone to sleep. He, himself, felt refreshed and eager. He leaned over the controls, watching the instruments and the charts.

Time meant everything. His heart was beating faster. The most grueling stretches lay ahead. Since the take-off at New York late on Friday they had traveled a terrific distance. And yet he had scarcely seen anything of the ground over which they had sped. The Mediterranean, Sicily, Crete, Syria, had been swept away while he had been asleep. He had awakened to find the country beneath obscured from his gaze by sand and then night.

Bates called by radio from Lisbon. He talked again to Cy in Bombay. The



Storm over the Atlantic.

Thunderbolt and the Dragon were reported coming down the coast of Baluchistan. Excitement seemed in the air as the reports crackled in his ears. The two leaders weren't faltering. The Scarlet Stormer would have a tough fight to catch up.

Time went on. Bill stayed constantly on the alert. The weather was calm and warm. He threw open the hatch overhead. On and on the great amphibian tore through the darkness. Planes were ahead somewhere in the night, each pilot straining to drive his craft to greater speed.

Hour passed hour. Bill kept tab on the local time clock, adjusting it. He estimated that he was over the Persian Gulf. The Scarlet Stormer's speed stayed constantly at three hundred and thirty miles an hour. He checked and rechecked his instruments. Any faulty calculations would be fatal. He had to stick rigidly to his course, flying blind.

The air was clear at twenty-two thousand feet. He had the propellers adjusted to give the maximum amount of pull. Everything depended upon his getting to Bombay as fast as possible. Only two more control points after that. On and on! He found his excitement mounting. More radio reports came streaming in.

THEN came the flash. "Bill—Thum-derboit landed here this minute," came Cy's voice, his drawl wiped aside in his excitement. "It's four thirty in the morning, Bombay time. Gardhouse is getting out of the plane. The whole field is brilliantly illuminated. Boy, the guy looks exhausted! Mechanics are flocking around. Wait a minute—"

There was an interval of silence. Bill put his hand to the throttle to make sure it was wide open. Sam Weir's plane had landed. His face was contorted. He had to overtake that ship and beat it into the finish. He couldn't let the *Thunderbolt* win.

Cy's voice came back: "They're going to refuel and get away pronto. I don't see how the guy can stand it. His mechanic will take over the controls. Get here as fast as you can, Bill. This Thunderbolt looks in good condition. They're filling her up now. Gardhouse has gone in to lie down. There's the loud-speakers— Wait a minute now—"

Again his voice was silent. "Hell, the *Dragon* will be here in a minute. Just got the news. Here it comes now. Yahr's roaring down over the field. I've got everything set for you, Bill. Keep her going. You're gaining on time. Don't let anything happen, for Heaven's sake. You'll lick those guys if—

"There he is coming in. Nice landing. I'm going out to see if I can get any dope on the other ships. Give her the gun, kid."

Bill's lips were compressed into a white line. He leaned forward in his seat. Every muscle was tense. The Scarlet Stormer seemed slow and cumbersome, the air like a solid blanket holding them back. The Thunderbolt and the Dragon had arrived. They were still ahead.

"I've got her wide open. We can't waste a second when I get in. Be on your toes."

He clicked over the switch. His stomach began to react to the intense excitement. He hadn't digested his food properly. It was the strain—the constant strain of always hurrying.

He saw lights ahead in the sky, and knew instantly that he was overtaking one of the racing planes. The Scarlet Stormer screamed ahead. The distance that separated it from the navigation lights of the other plane lessened. Then he was over and past it. The other plane blinked its wing lights. Bill returned the signal. The drive kept on and on. He was now tearing over the Arabian Sea near the coast of Baluchistan.

Sandy still slept, oblivious of the intense excitement that was flooding his tall companion. Bill remained tense, never relaxing. His mind went ahead. He knew he was closing up the gap; that there was still a good chance that he could overtake the leaders. The long sleep he had had now became a blessing.

But the closer he got to the *Thunder-bolt*, the more danger would threaten him. Sam Weir was determined to win the race and the one hundred thousand dollars. He had shown himself in the past as a ruthless and callous murderer.

With the Scarlet Stormer, which he had thought definitely out of the running, getting closer and closer, he would be desperate. Back in New York he'd be getting the minute-by-minute report of the planes. He would be out to stop the Scarlet Stormer for good and all.

BILL'S eyes were narrowed as they darted down to sweep over the extension-charging handles of the two .50-caliber machine guns at his right and left. The circular dials of the automatic counters showed capacity filling. He would meet violence with violence.

The destruction of the Sky Queen and the three biplanes should have put a check on the little crook's plans, but Bill knew that he would never stop until he himself was blasted out. As long as he kept his own skin intact, he would go on sacrificing the lives of his hired assassins to further his diabolical plans.

The Scarlet Stormer thundered past two more ships and then three more. The great scarlet bullet, even with its late start, was overtaking the field. But that was incidental to Bill. He was after the two ships in the van.

Cy reported again: "Gardhouse took off in half an hour—five o'clock Sunday morning our time. He saw me—asked politely how you were comin'. I stalled him. He laughed and said he wasn't worried about your catchin' up. He boasted about the terrific speed the Thunderbolt had if it was let out.

"He seemed damn sure of himself. You'd better watch your step, Bill. That guy and his boss are apt to pull anything. I got a hunch something's screwy. All the same the guy's got his nerve. He took off dead tired."

Bill frowned. Time and time again he had heard of Gardhouse's boastful remarks about the mysterious speed of the *Thunderbolt*. He began to wonder about it. Was there some truth in it? Or was it just a bluff to scare the other fellow off?

"Otto Yahr's just leaving now. Got a little shut-eye. Waited for dawn. He's damn wise. Gardhouse can't keep that up much longer. He'll crack wide open. There's a long way to go yet. How're you comin'?"

"Give me an hour," replied Bill crisply.

It lacked five minutes of that hour when Bill banked the Scarlet Stormer around high over Bombay. He inspected the ground. The morning was bright, with a hot sun pouring down. At the east he saw the large air field, the hangars, and a group of planes.

On the other side of the crowded city, a section of the harbor had been kept

clear from the milling water traffic as an optional landing area. Signal flags marked the stretch. Long floats nosed into the water from the shore.

The second control point!

He closed the throttle and dived down.

SANDY had come out of his sleep. He reached for his movie camera and peered out of the cabin.

"Should be able to get swell pictures

here," Bill heard him say.

"You won't have much chance, peewee," said Bill. "Soon as we get filled

up, we're pushing."

"Oh, gosh!" The boy stood up. "I'll get some shots, anyway. Boy, look at all those funny-looking boats down there."

The Scarlet Stormer straightened out, skinuned low over the harbor. On either side of the cleared space the water was packed solid with shipping—Arabian baggalas loaded with rice; large-sailed native fishing boats; small coastal steamers; massive liners in from the Suez Canal. The port milled with activity.

The wide stretch, reserved for the use of the world flyers, stood out clearly in contrast. There were two planes nosed up on the runways on shore being refueled. Bill aught a glimpse of their numbers and knew they were fellow competitors. A seaplane was drifting far out near the end of the clear stretch,

its engine idling.

Bill banked around and came in from the open ocean. The amphibian gear had been lowered, the wing flaps opened. The Scarlet Stormer sank lower and lower. The morning sun struck across the calm water ahead, painting it in swirling rainbow colors. The surface was heavy with oil, Bill realized. He brought the amphibian lower, shot past the biplane that was riding the swells, and settled down gently into the water.

They had arrived. Another lap was

over. He threw open the throttle. The Source Stormer rushed across the oil-streaked water toward the landing slips ahead.

He saw a tell man come out on a runway and wave. He was wearing a tengallon hat. It couldn't be any one else but the Texan, Cy Hawkins. The sombrero identified him. A warm feeling tingled through Bill. It was good to be welcomed at every port by one of the old gang,

The Scarlet Stormer rushed nearer. They were within two hundred yards of the shore. He could see Cy's tanned face clearly now. He closed the throttle.

It was Sandy's bellow that warned him:

"Bill! Fire!"

He slung around in his seat—and gasped. Back of them the water at the end of the open stretch on which they had landed was a mass of flames. The seaplane they had passed was roaring upward in a take-off. The pilot leaned out of the cockpit shooting a Very pistol down at the water. The burning flares were igniting the oil. The whole open path behind the Scarlet Stormer was filled with running fire. The flames leaped higher and higher as they streaked in toward land, devouring the thick layer of oil that lay on the surface. The conflagration was spreading to take in the packed ships on either side of the lane. There wasn't space for the Scarlet Stormer to take off ahead. They were almost at the docks. The inferno was racing in from three sides. They were trapped.

#### XII—DEATH WATER

BILL SAW it all in that first horrified glance. The whole harbor would be a raging furnace in a matter of minutes. The oil on the water, the dry wooden shipping, the gasoline power boats—tinder for the raging flames. An on-shore wind was whipping the blaze to a fury.

Like a madman he threw open the throttle, jammed the pontoon rudders at right angles. The big machine slewed around. It headed straight into the rushing wall of howling flames. There was only one thing for it. Their only hope of escape lay in taking off right into the maws of the raging furnace.

The engines were thundering. The amphibian was gaining speed. The fire charged in faster and faster. Bill waited, his hand white-knuckled on the control column, sweat rolling down his face. And then, even as the roaring mass reached out for the pelting machine, Bill jerked the stick into the pit of his stomach.

The Diesels were screaming; the propellers lost in silver blurs. The Scarlet Stormer came tearing off the flaming water at a forty-five-degree angle.

Bill's heart hammered. There had been scarcely time to get flying speed. But a second's hesitation would have seen the amphibian engulfed in the blazing tidal wave. The machine zoomed wildly through a sheet of flame. Fire seemed to follow it—seemed to cling to the long pontoons.

The bronze-faced pilot lived an eternity as he waited. It was a gamble. If the engines faltered—it was all over.

His blood turned to ice. The Diesels coughed, spluttered—and then roared smoothly. The amphibian came streaking out of the holocaust, its scarlet coating shimmering like a thing of fire itself.

The machine leaped eight hundred feet in that dizzy zoom. Bill caught a glimpse of Sandy over his shoulder. The boy was trying to get his camera focused on the flaming harbor below.

Bill brought the plane into level flight, retarded the throttle. His eyes swept to right and left and then to the sky

overhead. Horror paralyzed him. Racing down out of the sun hurtled a seaplane, its guns streaming lead.

Bill threw the stick into the corner, kicked the left rudder. The Scarlet Stormer flung up a wing, slid away in an abrupt side slip. And not a moment too soon. The lethal lines drilled across the sky-high wing, hammered into it. The seaplane's power dive carried it past. Bill recognized it instantly as the machine whose pilot had precipitated the conflagration below.

Everything had happened with stunning rapidity. Bill had no time to think. Instinct alone had saved him from the shrieking flames, and instinct again forced him to gain control over the amphibian as it threatened to skid back into the howling furnace.

His hand rammed the throttle wide open. He tugged back on the stick. The Scarlet Stormer reared up its head and bellowed skyward. Bill held the control column tightly to his stomach and whipped a glance back.

The enemy biplane had come out of its slashing dive and was banking around far below. The raging fire seemed to be within feet of it. Bill's eyes were hard. It had been murderous incendiarism—the blaze. He had managed to escape, but hundreds of lives would be lost. The flaming inferno was sweeping across the whole harbor. Boat after boat became a torch, Black oily smoke billowed up.

The amphibian's landing gear had been retracted. The zooming machine streaked over on its back. Bill rolled her right side up and jammed the stick down. His fingers found the gun trips, his squinted eye on the gun sights. There was no mercy in his face. The pilot of the seaplane had deliberately ignited the blaze and later had charged in, guns firing, to finish the Scarlet Stormer when it had escaped from the fire.

THE AMPHIBIAN'S flashing Immelmann had been made at lightning speed. The scarlet bullet was plummeting down before the seaplane had completed its vertical bank. Bill knew that his extreme speed didn't make for accuracy in shooting. But there was no time to waste.

A cold rage swept through him. His fingers tightened on the trips. The twin .50-caliber guns yammered. Lead and tracers spewed from the red-tipped muzzles. The fuselage of the seaplane crossed his sights, crossed those slashing lines of smoking death.

Bill held his hurtling machine dead on the target until a collision was imminent. The streaming bullets tore along the fuselage, raked the seaplane from fin to spinner cap. The Scarlet Stormer's pilot sat immovable in the cockpit. At the last possible moment he tugged back the stick. The amphibian reacted instantly. It screamed upward, its whirling propellers missing the enemy ship by inches.

Bill, his bronzed face contorted. whipped his streaking plane around with reckless abandon. Fire steamed in his veins. The Scarlet Stormer tore straight for the heavens, came over in a stall turn and sushed down again to the attack.

The terrific speed of his turns dazed Bill He fought to retain his senses. He knew he was in danger of being rendered temporarily unconscious from his reckless maneuvers at top speed.

Dead ahead, straight down, was the

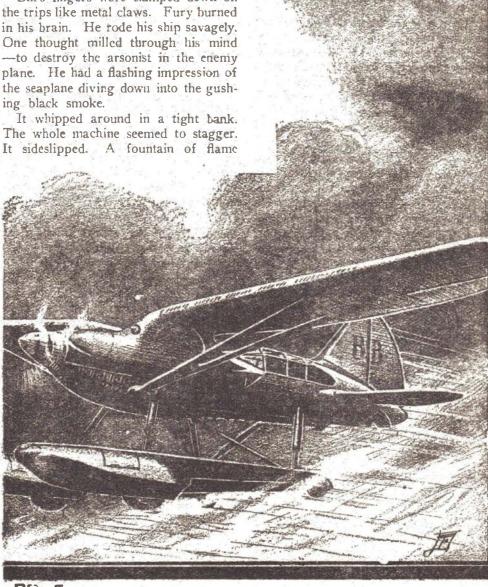
Through flame and smoke and bullets.



enemy seaplane. It was staggering in full flight. Its nose dropped. The pilot's face showed white as he whirled around to cast a terrified look back at the madman who was once again tearing in at him with the speed of lightning. He put his machine into a dive, whipped it around to get away from the lines of bullets that were again pumping from the Scarlet Stormer's guns.

Bill's fingers were clamped down on

leaped through the pail of smoke. It engulfed the faltering seaplane. Swirling oily clouds swept across in front of



B8-5

Bill. The scene was momentarily blackened out.

When he looked again he caught a quick impression of the seaplane's flaming empennage as the whole machine was sucked down into the vortex of the ravaging inferno.

One second the enemy ship had been dead ahead of him; the next it had vanished. All that now showed were leaping flames. The plane and its pilot had gone to their death in the fire of their own making.

The heavy smoke clouds choked the air, penetrated into the cabin of the Scarlet Stormer. Bill had the stick pulled back. He found himself gasping for breath. The last handful of seconds had been packed with violent action. His body was soaked with perspiration. He heard Sandy's voice in his ears.

"Gosh, Bill!" he exclaimed. "Gosh, that was close! Whew!"

Bill took the machine to two thousand feet, leveled off and circled. He looked down. The fire was spreading. It would soon engulf the whole harbor. The open landing stretch was completely engulfed. The racing flames had reached the landing slips.

The two racing ships that had been refueling there were ablaze. The wind-whipped fire was streaking through the packed-in sailing vessels. Sailors fought desperately to propel their crafts from the consuming cataclysm. Sails became flaming sheets; hulls balls of crimson. Men dived overboard to swim for their lives. The flames, sprinting after them, engulfed them.

The disaster was beyond control. Nothing could stop the ghastly devastation.

BILL was aghast at the enormity of it all. The whole harbor—and now the entire city was threatened. His eyes probed down through the smoke to-

ward the landing slips. Cy Hawkins had been there, waiting for them to land. Had he escaped the holocaust? He had had plenty of time to get away. The slips and the hangars back of them were flaming. Fire apparatus was streaking through the streets of the city. Mobs of people ran helter-skelter.

There was nothing else to do but land at the optional air field. Bill's eyes swerved to the local clock. He had arrived over Bombay at eight o'clock. It was now a quarter past. He hadn't lost much time, but every minute counted. The *Thunderbolt* and the Dragon were well on their way now toward the third control point at Bangkok.

Cy had made arrangements for refueling the Scarlet Stormer at the harbor. Would there be any delays at the field? Would everything now be snarled up by the catastrophe that was threatening to wipe out the entire city? He whipped his ship around in a steep bank and threw open the throttle.

The smoke from the burning area was filling the sky, rolling low over the narrow city streets. Houses on the water front had now been added to the blaze. The fire was creeping in from the sea to devour the land.

The Scarlet Stormer streaked low over the official landing field. Bill saw a crowd of men on the apron in front of the row of hangars. Gasoline and oil trucks were parked near by. One of the competitors in the race was at that moment racing down the runway in a fast get-away. The Scarlet Stormer was signaled to keep clear. Another numbered plane had its engine running on the apron. It was wheeled over to the runway. The pilot scrambled in. Bill circled his ship. The delay in waiting for the two machines to get away irked him. His nerves were drawn taut.

Sam Weir had engineered the incendiarism. Sam Weir had once more on the stick with a grip of iron. The little crook was stopping at nothing. Hundreds, thousands of lives were being sacrificed in the gigantic pyre in his desperate attempt to insure his Thunderbolt the winning postion in the race. And those lives had to be avenged. Bill's face was a mask of ferocity.

The second plane was now taking off. Bill banked around, closed the throttle. The wing flaps opened; the landing gear sank into position and locked. The Scorlet Stormer raced in for a recklessly fast landing. Its pilot sat grim-faced. No time could be lost. He had to overtake the Thunderbolt. The flight to Bombay from Lisbon had shaved down the time handicap again. But that gain would be wiped out if he couldn't get under way rapidly.

He ground-looped the ship, threw open the throttle and raced toward the hangars. Over his shoulder he saw Sandy holding his movie machine.

"I got some swell shots of that fire," Bill heard him say. "Even got that biplane headed down into the flames."

Bill's voice was hard when he spoke: "Forget that movie stuff. We have to get away fast. The chances are that Cy hasn't been able to get across the city yet. We'll both have to lend a hand. And, Sandy, take that automatic from the pocket beside you. And be ready to use it. We're up against killers."

The Scorlet Stormer ran up on the concrete. Bill jerked on the brakes. He stood up, threw back the hatch, and pulled himself up. Four grease-stained mechanics trotted over to the great scarlet machine. Behind them came a tall, gaunt race official wearing a pith helmet.

Bill dropped to the ground. The official rushed over, his hand extended. He was English. A small waxed mustache jutted out from under a bulbous nose.

"I say, Barnes!" he exclaimed excitedly. "We heard you shot down the blighter that started all this mess. Good work! Ghastly business!"

Bill swept his goggles up. "Cy Hawkins here? He was down at the

harbor waiting for me."

"He just phoned. He's on his way. Bit of a mix-up in the city streets, you know. Natives panicky." He thrust an official record at Bill with a fountain pen. "Sign this. We won't hold you up, my lad. We're all pulling for you to come through. Splendid effort so far!"

Bill signed.

The Scarlet Stormer had to be refueled, given a quick overhaul as soon as possible if they were to have a chance at overtaking the leaders. Sandy came out of the cabin and dropped to the ground. The mechanics wheeled the amphibian farther up on the apron and turned her around.

AT THAT MOMENT a car of ancient vintage came roaring around one of the hangars. Bill's heart leaped. A tall man wearing a ten-gallon hat sat beside the driver. It was Cy.

The Texan let out a whoop, leaped from the car before it had stopped and rushed over.

"Bill!"

"Cy!"

Their hands clasped in a bone-crush-

ing grip.

"Man, I'm glad to see you! I never thought you'd pull out of the harbor. The whole place is blazing. They'll have a hell of a time to save the city."

Hawkins wheeled around suddenly and barked orders at the mechanics.

"Can we get away fast?" asked Bill. "Every minute counts."

Cy cursed. "I had everything down at the harbor. There's none of that special fuel oil here. The truck's heading across the city now. I managed to get it away before the whole works caught. But it'll take a little time. The streets are jammed."

Bill groaned. There was no telling how long the truck would take getting there.

Sandy came running up and greeted Cy boisterously. "Hey, I got the swellest movies of that fire! You ought to——"

Bill cut him off. "We might as well eat and get some rest. I hope that truck gets here soon."

Cy gripped him by the arm. "It will, Bill. There's plenty to do here, anyway. It's a damn good chance to give the whole bus the once-over. He turned and pointed to a large building beyond the hangars.

"Restaurant and rest rooms in there. You two beat it. I'll stick out here. We'll make as much speed as possible."

Bill nodded dully. The effects of the long flight and the furious action had left him exhausted. He felt let-down.

"Come on, Sandy. Let's eat. Make as much speed as you can, Cy. We've got an awful job ahead as it is, catching up with those birds."

They crossed the apron and entered the building that had been erected especially for the use of the world flyers. The interior was cool in contrast to the blazing tropical heat of outside. They ate in silence.

Bill's thoughts were troubled. The clock over the doorway showed eight thirty. The Thunderbolt had taken off at five o'clock that morning and the Dragon one hour later. His fingers bunched the tablecloth. If the Scarlet Stormer could only get away soon the time handicap might again be reduced. There would be a good chance that they could catch up.

But they didn't get away soon. The fuel truck didn't arrive. Bill tried to sleep on one of the cots, but that was impossible. His nerves were jumping. He got to his feet and paced the floor. Sandy lay on his back in slumber.

Bill looked down at him. The kid was surely taking everything in his stride. When the Scarlet Stormer and its two passengers had been on the verge of death, he had calmly held up his movie camera and taken pictures.

The clock moved on—from eight thirty to a quarter to nine. Every passing minute was agony for Bill. Three times he went out to the apron. Cy was wild-eyed. He had almost torn the phone from its moorings in a despairing effort to find what had happened to the truck. But even the phone service was snarled up. The fire in the harbor was terrifying the whole city. Natives streamed along the road past the air field, fleeing in terror from the raging flames.

Bill's nails slashed into the palms of his hands. Sam Weir had failed to kill him in the fire, but the delay caused by the blaze might still put him out of the race. Again he went back to the cot and stretched himself out. But rest was impossible.

It was nine o'clock when the truck thundered up the drive. The driver lolled over the wheel. Bill, hearing Cy's shout, had come racing. They sprinted over to the truck. Blood was streaming down the native driver's face and side. They pulled him down, laid him out.

Bill bent over him. "He's been shot!"
The man was gasping for breath. His eyes flickered open. He murmured in Hindustani. The English official dropped down, put his head close to the wounded man. Bill could scarcely hear the whispered foreign words.

The driver's lips stopped moving. His whole body arched up, writhing in pain. He fell back. His head lolled limply. The official felt for the heartbeat and shook his head.

"Dead," he said as he got to his feet. His eyes went from Cy to Bill. "Come over this way."

Out of earshot of the others he said: "I understand the language. The poor

blighter said: 'Tried to get here fast. Streets bad with traffic. Three white men jump on truck. Tell me to stop—to get off. I drive faster. They shoot my helper through head. He falls off into the street dead. I get away. They shoot me too.' That was all."

A TINGLING shock surged through Bill. The enemy forces were still work-

ing desperately against him.

"A definite attempt to delay me," he said tonelessly. He looked over to where the dead native was stretched out. His face went dark with anger. Another life taken—another life to be accounted for when the show-down between the archeriminal, Sam Weir, and him arrived.

The English race official was concerned. "You'd better be careful, Barnes. Whoever is after you means business."

Bill nodded slowly. "Murder business."

Cy rubbed his leathery cheek. "That hombre had guts. He got the truck here even when he was dyin'." He turned away. "We'd better get on with the refuelin'."

Bill dug inside his flying overalls, pulled out a wallet and opened it. There was a thin sheaf of bank notes inside. He extracted one of the largest denomination,

"Will you see that that native's family gets this, sir?" he said to the Englishman. "It's not much—but I want

to do something."

The official took the bill. His eyes locked with Bill's. "I will, Barnes.

You're a gentleman, sir."

Bill looked away toward the Scarlet Stormer. The truck had been moved up to it. Cy was standing, his sombrero pushed to the back of his head, lashing the mechanics with his tongue. Two hose lines were extended from the tank on the truck to the plane.

Bill went over. "How long, Cy?"



OTTO YAHR

The Texan looked at his watch. "You'll be able to get away by nine thirty."

"No sooner?"

"Afraid not, Bill. Everything else is set, though. Engines are swell. The whole job looks in good shape. This sure is a test of the boat."

Bill had arrived over Bombay at eight o'clock. He had figured on getting refueled and away in half an hour—by eight thirty. If the Scarlet Stormer did not take off till nine thirty he would have lost one whole hour.

He glanced moodily across the concrete and saw that the native driver's body was being taken away. One hour lost that might have been saved—but if the spunky little Hindoo hadn't stuck relentlessly to his job, that hour might have been extended indefinitely.

The smoke from the fire was sweeping across the field. A low-winged monoplane came tearing down through it to circle the port. The number, 24, was plainly visible on the lower part of the wings—one of the racers.

The pilot killed his engine, brought his ship in for a bumpy landing, and taxied up onto the apron. Bill watched while the pilot slowly lowered himself from the cockpit.

The English official went over to him and guided him toward the pilots' build-

ing. The man was obviously dead tired. He staggered as he walked. His face was thickly streaked with grime and grease.

"How many ships are ahead of me now, Cy?" Bill asked.

The Texan wrinkled his forehead, "Eleven—no, twelve."

"I must have passed plenty last night, then. I saw only one or two."

"Must have," replied Cy. "But you'll overtake most of those guys ahead. Gardhouse and Yahr are the ones to worry about—and that Canadian, Taylor. I figure him for the dark horse. He's slipping around without any hullabaloo. But you'd better watch him. He's got a fast ship there. He left here at six thirty. Say, Bill, you should go in and get some rest. Hell, you have to wait, anyway."

"Yes. I guess so." He gestured with a hand. "Look—my traveling news reel."

The towheaded Sandy had come out of the building and was engrossed in taking movies.

"Those films will be worth something," said Cv. "

Bill nodded and turned away. "Forty winks for me," he said. "Nine thirty we get away?"

"Looks like."

IT WAS nine thirty to the dot when the Scarlet Stormer raced across the Bombay field and headed upward. The third control point at Bangkok, Siam, lay far to the east. The reflection from the harbor fire was in the skies. The great vault of the heavens was streaked as if with human blood.

# XIII-THE TIP-OFF

BILL sat motionless in the seat, his eyes swerving from the instrument board to the country ahead. The Scarlet Stormer was racing through the air at twenty-one thousand feet. The

air-speed indicator held steadily to three hundred and fifty miles an hour.

The loss of an hour at Bombay irked Bill, yet the time handicap had been cut down. The *Thunderbolt* was now only four and a half hours ahead and the *Dragon* three and a half. That handicap had to be overcome. The distance to go was getting shorter and shorter. After Bangkok the last control point was Tokyo---and then the long hop home to New York and the finish.

Everything depended upon time. The Scarlet Stormer had left Parker Field nine hours late. At Lisbon, it had been six and a half behind. And now—four hours and a half. The sleek amphibian was up and on the way again.

Bill felt wide-awake and alert. The short nap he had managed to have, just previous to the take-off, had helped considerably. There could be no let-up now until they were on even terms with the planes ahead.

The weather was perfect. Everything seemed conducive to speed. The Scarlet Stormer, during the enforced wait, had been gone over carefully by the mechanics. The delay had perhaps been a blessing. The route ahead was hard. The great watery stretch of the Bay of Bengal had to be jumped. If anything should happen in crossing it, there would be little hope of ever getting back into the race. The amphibian would float on a calm sea indefinitely, but the seas of the Orient were given to sudden and violent upheavals.

Bill made radio contact with Shorty Hassfurther who was waiting at Bangkok.

"Everything set for you, Bill," came Shorty's bright voice. "Got three of the best grease monkeys in the business waiting to feed the old *Scarlet Stormer*. Are you coming around by land?"

Bill told him the route lay straight across the open expanse of the Bay of Bengal.

"Gardhouse and Yahr and the Canadian are doing the same," said Shorty. "The rest of the mob seem to be playing it safe and coming around the long way. You four guys should leave 'em all in the ditch. You'll save hours."

Bill smiled grimly. "I know. That's

why I'm coming this way."

There had been no definite reports at Bangkok of the positions of the *Thunderbolt* or the *Dragon* or the Canadian plane.

"Have everything ready, fella," said Bill as he signed off. "We won't be

stopping long."

The amphibian droned on and on. Two hours passed. Bill looked down to see the coast of India slip to the rear. Below and stretching as far ahead as he could see was a great expanse of water—the Bay of Bengal. It was like a huge mirror in the brilliant sunlight. A sliverlike steamer seemed glued to the blue water.

The Scarlet Stormer's high altitude was adding to its speed. Four and a half hours behind! Bill had the throttle wide open. If luck was with them, the time handicap would be even less when they landed in Bangkok.

SANDY methodically brought out sandwiches and containers of coffee. They both ate. Bill wasn't hungry. The cream in the coffee tasted sour. His stomach was getting upset.

On and on! Half an hour later the radio indicator glowed. Bill flipped over the switch. A singing voice came into his ears. He frowned in perplexity and then tensed forward. It was Shorty.

"Bill! Get this quick. I haven't much time,"

Shorty's voice rose and fell in a weird

"They got me—captured. There's a native beside me—with two rods jammed into my side. I managed to connect the radio without his knowing.

He doesn't know what it's all about. I'm grinning, and singing this. He's laughing at me. Thinks I'm having a swell time. You hearing me O. K., Bill?"

"Yes. Go ahead!" Bill's fingers were clamped over the stick like a vise.

Shorty captured!

"I fell into a trap—went to the rescue of a chink girl. It was a plant," went on the singing voice. "I was jumped. Hadn't a chance. I'm in the Snorter now. There are five guys in the gang. They've knocked out the mechanics—tied them up in the hangar. A slick job. A chink, Chan Lo, seems to be the big shot. He forced me to write a note to you. It'll be left here. They're going to force me to fly with them. Are you getting all this?"

Bill's heart was pounding in his side, His eyes blazed. Shorty in the hands of the enemy even at that moment!

"I hear you, Shorty. Go ahead."

"It's all a trap to get you, Bill," said Shorty. "The note pleads with you to come to Domaring in Borneo to rescue me. I was forced to sign it. They're after the Scorlet Stormer. Don't come. Go on with the race. I'll play along with them. There's some connection with Otto Yahr in this business—he's tied up with Chan Lo.

"I haven't got much time. This native is falling for the singing gag, but the others won't. Your job is to finish the race, Bill. Forget me. You have to win for the old gang. Go on with the race. You can win it. Some one's coming—"

Bill spoke rapidly: "O. K. I'll send Bev, Cy, and Red down to Borneo. Hang on, fella!"

"Good-I'll make-" Shorty's

voice broke off abruptly.

Bill strained his ears. There was no sound. Shorty had cut off. Bill waited and then flicked over the switch. Bitter anger flooded through him. Everything was being done to stop the Searlet

Stormer. Shorty was being used as a pawn. But Sam Weir didn't seem to figure in this newest development.

His mind was definitely made up. He'd have to go on with the race. Shorty wanted that. It seemed heartless, but the only thing to do. And now he had to win more than ever. He'd send Cy Hawkins and Bev Bates down to Borneo immediately. They both had their Snorters with them. They would be able to take off in no time. After he reached Tokyo where Red Gleason was stationed, he'd dispatch the carrotheaded pilot speeding southward, also.

SAVAGELY Bill twisted the dials, calling Bev and Cy. He crouched forward in the cockpit. If he could only get to Bangkok in the next few minutes! But it would take hours yet. Shorty was being taken away at that minute—taken away so that Bill would come to his rescue and be captured.

A blistering curse ripped from his lips. Otto Yahr, the pilot of the Dragon, was mixed up in the infamy—he and a Chinese, Chan Lo. Another set of enemies had shown their fangs. Sam Weir wasn't alone in wanting the Scorlet Stormer out of the race.

He talked to Cy and Bev; told them curtly what had happened; issued clipped orders.

He told Sandy about it.

The boy was horrified. "Who's this Chan Lo, Bill?"

Bill's mind was seething with the same question. Somewhere he had heard or seen that name. But he couldn't place it. He didn't remember that the man had been a powerful war lord in his native country some time back, and his name had frequently appeared in the newspapers back in the States.

"I don't know, kid. He's out after my hide in any case with Otto Yahr."

"I always suspected that guy," said Sandy. "Golly, Bill, both the Dragon

and the Thunderbolt are out to get us, huh?"

Bill nodded grimly. "We're in for a battle, peewee. Something big's going to break ahead—something that'll make that Bombay business look like a bonfire. We'll have to watch ourselves every minute."

The Scorlet Stormer was tearing on and on. The hours sped away. The great Bay of Bengal swept in monotonous repetition under them. With Shorty gone, the radio was silent. No reports came in. The positions of the planes ahead were clouded in mystery.

Bill's eyes went to the New York time clock. It showed three o'clock a. m. The word "Sunday" showed underneath it. They had covered an enormous amount of territory since they had taken off from Parker Field at three o'clock on Friday afternoon. Already they were halfway around the world.

They would soon be heading into the last lap. New York was the goal. To the winner went one hundred thousand dollars. Bill felt the pound, pound, pound of engines in his brain. His eyes probed the skies ahead. Everything was pointing toward a show-down. He was gaining relentlessly on the leaders. If nothing happened he would be up to them before they reached Tokyo.

The local time clock showed that it was three o'clock Sunday afternoon when he sighted land. He called excitedly to Sandy and pointed. Bangkok was situated not far from the coast—the third control point. His eyes swept over the instruments, checking his position. There could be no time lost hunting for the city. They had to hit it right on the nose. Here, again, there were two optional landing places—on the river which cut directly through the picturesque city or at an airport.

Bill had planned to use the water. Shorty and the mechanics with the supplies had been stationed there.

At twenty minutes after three, the

Scarlet Stormer roared low over the exotic Far Eastern city with its glittering temples, its narrow, congested streets. The scene that swept under their eyes was awe-inspiring. Bangkok was a riot of color. Scintillant tiles of red, yellow, and blue glistened like rare jewels in the hot afternoon sun.

Bill banked around a conical temple tower and went down low over the river. A long stretch had been kept clear for the use of the racing machines. Hangars with long floats dipping down into the water lined the course on one side. The rest of the river was packed with commercial craft—Chinese junks, sailing vessels, sampans, and steamboats. The water was churned white by the milling activity. Great rafts of teak logs floated downstream.

The landing space was devoid of any aircraft. White-clothed men rushed out on the floats, waving their arms as the amphibian swept overhead. Bill banked around, closed the throttle and went down. He spoke quickly to Sandy:

"Play dumb about this Shorty business. Act surprised. We'll be watched. We have to act as if we're falling for the gag. Understand?"

"O. K."

"You stay in the cabin, Don't get out. We won't be here long."

The amphibian roared up on the slip. Mechanics sprinted forward to twirl her around. Bill stepped down from the cabin. He was immediately surrounded by officials.

The place was seething with wild excitement. Not only had Shorty been kidnaped, but Cash Gardhouse's mechanic who had been flying with him had died of the Green Death.

### XIV-THE DRAGON STRIKES

BILL was genuinely taken aback by the latter news. The plague for which Sam Weir had been responsible had now stricken one of his own men-one of the crew of the Thunderbolt.

As he signed the official book, three people told him the news of Shorty's disappearance and the details of the last attack of the Green Death. The Thunderbolt had landed at twelve noon with the mechanic dead in the seat beside Gardhouse. His flesh had turned emerald green. He had been a ghastly sight.

Gardhouse had been callous about the whole affair. The man had been taken sick halfway from Bombay. He had died shortly afterward. The pilot of the *Thunderbolt* had ordered his ship refueled and had taken off again in half an hour—alone.

"He's planning to turn his ship to top speed," said one of the officials. "He claims he'll astonish the whole world by getting to Tokyo in record time. I've heard rumors about the secret speed of this ship. Gardhouse said that he thought this was the time to open up and show his heels to the rest."

Bill's eyes narrowed. Again the Thunderbolt and the mysterious speed! Was the plane really capable of the terrific speed its pilot claimed? This was the test. His flying time to Tokyo would answer the question.

Bill had ordered the Scarlet Stormer refueled. He didn't have to force himself to show great surprise and anxiety over Shorty's capture. He was anxious—damned anxious.

A wild-eyed little mechanic was brought before him. He told his story in short incoherent sentences. They, the mechanics, had been knocked out. When they had regained consciousness Hassfurther and the Snorter had disappeared. The man handed Bill a note he had found. Bill read it. It was as he expected.

Food was taken out to Sandy in the cabin. The refueling was hurried up. Bill paced up and down the slip in agitation. There was no time to lose. The

officials had told him how the competitors now stood. The Scarlet Stormer was the fourth ship in. The Thunderbolt had arrived at noon and left at twelve thirty.

The Canadian flyer, Taylor, had edged into second place. He had landed at one o'clock and left at one thirty. The *Dragon* had checked in just as Taylor had been leaving. Otto Yahr took off again at two o'clock. The remainder of the racing planes hadn't arrived. The race was narrowed down to four ships.

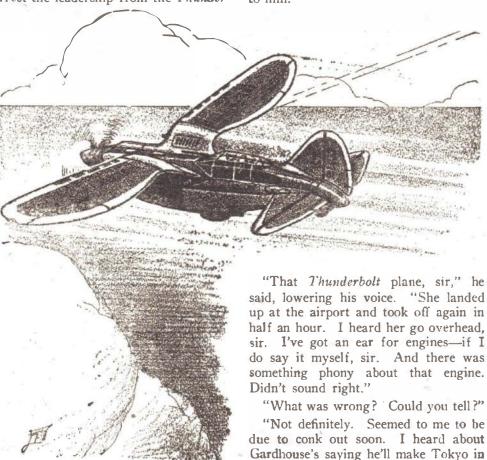
Bill's hands were clenched into fists. The Scarlet Stormer was closing in on the three leaders. The stretch to the last control point at Tokyo would tell the story. He had a good chance to wrest the leadership from the Thunder-

bolt—if the reported high speed should prove false.

His thoughts went to Otto Yahr. Shorty had said there had been some connection between his abductor, Chan Lo, and the Eurasian pilot. What could be expected? The ex-war pilot had checked in and checked out. How was he connected with the plan to capture the Scarlet Stormer?

The time seemed to whip past. Bill glanced at his wrist watch continuously. Officials inquired if he was going to the rescue of Shorty Hassfurther. He stalled them off with evasive answers. There was no telling whom one could trust. He'd keep his own course.

The little mechanic who had told him about Shorty's disappearance came over to him.



record time. It's just my own opinion, sir, but I think he'll be lucky if he ever reaches there."

Bill looked down at the little man. "Well, if that's the case we should over-take him easily."

The mechanic shrugged. "I hope so, sir. I may be wrong, mind."

He turned around and hurried back to his work on the Scorlet Stormer. Bill considered the information. If the

and the *Dragon* two hours. Bill was cutting it down. His eyes gleamed as he leaned forward in his seat. He held the *Scarlet Stormer* to a gradual climb with the throttle wide open.

The local time clock showed four

Bill calculated swiftly.

Thunderbolt was three and a half hours

ahead, the Canadian, two and a half,

Sandy had finished taking some parting movie shots of the glamorous city they had just left and sat back in his seat.

Bill tried to get Red Gleason on the radio and failed. There was no answer from the pilot he had stationed at Tokyo. He twisted the dials in desperation. Nothing happened. At intervals for an hour, as the heavily wooded Siamese country rolled away underneath he worked over the radio.

Suspicion flared up in his mind. Had anything happened to Red? Had the enemy forces planned a trap for him at the Japanese port? Had they wiped out his representative there? A shiver of fear for Red's safety crawled up Bill's spine.

The Scorlet Stormer streaked high over the border line from Siam into French Indo-China and raced on. The bronze-faced ace held the throttle wide

little mechanic was right, the race was in the bag unless some mechanical defect overtook the Scarlet Stormer. He felt confident that he would be able to overhaul the Canadian and Otto Yahr hefore New York loomed up ahead.

And then the refueling was finished. Bill was back in the plane. The engines were thundering. The Scarlet Stormer was heading out into the river. He flipped up a hand in farewell and gunned the Diesels. With a roaring salute the great scarlet bullet blasted skyward.

ON TO TOKYO—over thirty-five hundred miles to the north—the last control point. From there on, any route might be taken back to New York City,



open. Tokyo had to be reached as fast as humanly possible now. Something had happened to Red.

The China Sea showed through the windshield. A thick, tangled jungle swept down to the sea coast. Bill watched the country sweep away below. Again they were over open water. In eleven hours from the take-off he hoped to be in Tokyo. With his inability to raise Red on the radio he was at a loss to learn the respective positions of the three ships ahead.

Suddenly his eyes narrowed. He pushed close to the side window of the cabin and looked down. Far ahead was a plane. It was at a low altitude. Even as his eyes fastened on it he saw two crimson flares puff out in the sky behind it. A signal of distress!

He retarded his throttle. The stick moved forward. The Scarlet Stormer's nose dropped.

"Sandy," Bill said into the microphone. "You see that plane ahead there?"

"Where?" The boy's voice was sharp with excitement. He followed the direction of Bill's pointing finger. "Yeah. I see it. Good gosh!"

"We're going down to have a look," said Bill. "Can you see any number on her?"

"No. Looks like a monoplane, though."

Bill held the amphibian to a downward circling course. From their extreme height the ship below looked the size of a match stick.

"She's in trouble, all right," said, Bill. "The pilot must have seen us and fired those distress flares."

They were getting closer and closer by the split second. The plane below was flying erratically.

Sandy's sudden yelp blasted in Bill's ears: "Bill! Look! There's No. 17 painted on the upper wing. See? No. 17—that's the *Dragon*—Otto Yahr!"

BILL'S fingers tightened convulsively over the control column—Otto Yahr!

He could see it plainly now—that number. The two-engined, low-winged monoplane showed clearly as they raced nearer. It was listing heavily to the left. The right wing was high. Bill circled nearer. The *Dragon* was a land plane. Below was the China Sea and no sign of land. If Yahr and his mechanic went down they would have little chance of ever escaping alive.

But should he go to Yahr's assistance? He had no proof, aside from what Shorty had said, that the man was his enemy. And even Shorty hadn't known anything definite about the Eurasian's connection with Chan Lo.

Bill's forehead was wrinkled. Enemy or not, it would be impossible to go on, leaving the crew of the obviously crippled plane to their fate. Time meant everything, but human life couldn't be sacrificed to save a few minutes. Bill made his decision.

There was no room to take Yahr and his mechanic inside the cabin, but at least he could allow them to cling to the wing or pontoons until he could taxi to shore. The Indo-China coast wasn't too far away. It would be precious time lost. But that couldn't be helped.

And with the *Dragon* out of the running, the planes ahead had been cut down to two—the *Thunderbolt* and the Canadian.

The Scarlet Stormer dived down nearer. Bill's eyes were glued to the plane below. The possibility of trickery came to his mind. He'd have to be on his guard against that. The whole setup might be part of a plot to get him out of the race. His fingers crept over the gun trips. He couldn't be too careful.

The *Dragon* reeled drunkenly. Bill saw that the propeller of her left engine was barely ticking over. The engine in the right-wing nacelle was tak-

ing the full weight. The monoplane's nose was dipping down. The ship was losing altitude quickly.

The Scarlet Stormer was within fifteen hundred feet of it. Bill maneuvered his plane around to come up on the Dragon from behind. As he dived lower, he saw the shadowy figures of the pilot and his mechanic in their seats in the nose of the ship. The cabin had a transparent roof.

The *Dragon* was lurching badly. It went into a sudden swirling side slip, to come out of it five hundred feet above the water. Bill brought the *Scarlet Stormer* overhead, passed the struggling plane. He saw the man at the controls turn his face and look up. He waved an arm frantically and pointed down. In the next second the machine lurched and dived again.

Bill banked swiftly around and went after it. The pilot of the *Dragon* had signaled to go down. The machine looked to be in serious trouble. Yabr was fighting to keep the nose up. But the faltering left engine was holding it back from gaining sufficient flying speed. It was headed toward the direction in which lay the coast of Indo-China.

Bill's eyes swept the skies. His mind was still flaming with suspicion. All this might be a lure to put him on the spot for other attacking planes from above. But the sky was clear of any other aircraft. His glance went down to the *Dragon* again. If the plane was going to land on the water it would have to do so soon—unless the faltering engine straightened out.

Again Bill saw Otto Yahr gesturing for him to go down. Bill held his machine circling overhead. He'd wait until the *Dragon* hit the water before he'd land alongside. If it was a trap, Yahr would want him down below first.

He was past the monoplane and banking around when it happened. It didn't catch him entirely by surprise. But he

was unprepared for the full savageness of it all.

The left propeller of the *Dragon* suddenly picked up revolutions. The staggering monoplane straightened out and zoomed straight at the *Scarlet Stormer*. Twin machine guns in the nose of the machine spewed out lines of fire.

THE SCARLET STORMER was half around in a vertical bank. The sudden maneuver of the Dragon caught Bill unprepared. He threw the stick to the corner, sideslipped the big amphibian away. The screaming lead chewed through the leading edge of his left wing.

Bill's face was contorted. Yahr had tried his best to decoy him down to a landing and, when that had failed, had thrown caution to the winds and come sailing at him in a mad, reckless assault.

The Scarlet Stormer was out of the line of fire. The Dragon roared past. Bill pulled his machine out of the stip, swung it violently around, nd threw open the throttle. The enemy ship was far above him now and coming around to return to the attack. Bill pulled the stick back and streaked up to meet it.

The two fast machines roared toward each other like two giant birds of prey. Bill's fingers cl mped down on the trips. His guns chattered out their streaming death. He saw them slash through the shatterproof glass of the *Dragon*'s cabin. Yahr threw his machine wildly out of range, dived and came streaking up again.

Bill rode his machine as if he was part of it. The *Dragon* was lightning-fast, but the *Scarlet Stormer* was faster. Both pilots were skilled men at the controls, with Otto Yahr having a long record of actual war flying back of him.

It was a strange and deadly duel above the silent waters of the China Sea. The planes raced and tumbled all over the sky. A fight to the death,

with neither man giving an opening. The air was filled with flaming lead. Thunder of racing engines rolled across the desolate spaces.

Bill waited, matched move with move. He could cut away and run for it, but that would never do. No! One or the other had to go down. Sandy was wildly excited in the rear seat. He held his camera up, tried vainly to get his sights on the weaving, dancing shape of the *Dragon*.

Five minutes passed. Both men had fired round after round of ammunition, but no serious damage had been done to either ship. Bill's face was a set mark of grim determination. His teeth were clenched tightly together. His cheek muscles bulged.

He realized that time was passing—time that he should have been devoting to catching up with the two remaining leaders in the race. But Otto Yahr had to be shot down. He knew now that the sly, yellow-faced Eurasian must have been partly responsible, at least, for the kidnaping of Shorty.

He had the *Dragon's* fuselage across his sights for a fleeting second. His fingers janumed down. A wild ecstasy welled through him as he saw his bullets pump through the fabric of the enemy ship. But it had apparently little or no effect on it. The *Dragon* had swept out of range.

Bill hadn't been conscious of anything but the furious death combat. His eyes flicked down and widened with surprise. The running, swirling fight had carried them hack across the China Sea to the Indo-China coast. He saw the thick, matted jungle below.

The *Dragon* was whirling around in a fast Immelmann and tearing in on him. Bill dived straight down for the jungle growth. The Diesels were screaming. The air-speed indicator swept on to four hundred miles an hour. Then with a jerk of his hand he pulled the stick back into his stomach.

The Scarlet Stormer came screaming out of the terrific dive, with a suddenness that shivered the whole gull-wing structure. Its nose was pointed for the sky. It came over. The sleek bullet was on its back—and on the Dragon's tail before Otto Yahr could maneuver away.

Bill's fingers pressed down on the gun trips. His mouth was twisted in a half snarl.

Lead and tracers plowed into the monoplane, ripped along the belly of the fuselage from the tail structure to the nose. Bill knew he had his man. He didn't relent. His fingers were clamped down on the trips. The *Dragon* was yawing wildly. Its nose came up into the air. And then it rolled into a side slip.

Bill kept after it, pouring round after round into his victim, and then pulled his great scarlet machine away. The Dragon was doomed. Its nose was pointed for the matted jungle. Bill could see the Eurasian and the mechanic, apparently unscathed, fighting desperately for control over their plunging machine. The left engine had been stopped completely. A grinding sound came from the falling ship.

THE DRAGON was finished. It reeled into a spin. The pilot fought out of it. The dive continued. Bill went after it, his guns now silent, his eyes glittering. Sandy was yelling wildly in his ear. Bill didn't notice. The fury of the fight was still with him. Perspiration cascaded down his face.

The *Dragon* was fifty feet from the waving tops of the trees. They formed a tight canopy over the land underneath. Nothing showed but the leafy branches. The monoplane leveled off, staggered, and then pitched headlong straight into the mass of foliage. It disappeared from view.

Bill took his thundering plane down low and flew over the spot. But he

could see nothing. The thick verdure had sprung back into place after the Drogon had plunged through. There was no sign of the machine, nor the two men who had occupied it.

Bill banked around and came back. He went over the top of the jungle three times, his eyes probing down into the dark recesses. But he saw nothing of his adversary. He pulled the Scarlet Stormer for the skies.

"I never thought you'd get him," said Sandy. "I tried to get some pictures, but didn't click. Boy, they would have been honeys."

Bill didn't answer. His mind was full. There was no use looking for the Dragon and the two men. There was no place to land. The thing to do was to get back on the course and head as fast as he could for Tokyo. He looked quickly at the clock. The fight had barely lasted twenty minutes. It had seemed like a lifetime.

His heart gradually slowed down as he once more picked up his course and headed out across the China Sea. The Thunderbolt and the Canadian plane were the only two contestants ahead. He had lost some time, but now Otto Yahr, the treacherous Eurasian, was definitely out of the running. Two planes ahead of him! One with a handicap of three and a half hours and the other with two and a half hours. He threw open the throttle.

Thunderclouds were beginning to creep across the sky from the east. The sun was blotted out. The blueness of the sea vanished into slate-gray. The wind cut across the surface of the water and raised whitecaps.

The Scarlet Stormer sprinted at full speed. Bill flew low. Above him the clouds were heavy with moisture. He was in a bad storm area. If a monsoon struck, it might be disastrous.

An hour passed. Bill tried again to raise Red Gleason by radio and again was unsuccessful. His eyes were burn-

ing. The drive was on. He began to wonder again about the mysterious speed of the *Theodorbolt*. If he could only get Red on the radio he'd be able to learn Gardhouse's position. The standing at Tokyo would tell the story. After that was a long, a terribly long flight, but it would be the home stretch.

Bill watched the clock. A strange feeling of confidence swept through him. He refused Sandy's offer to take over the controls. He'd stick with it to Tokyo. Perhaps there, if they had evened matters with the two leading planes, he could get a little rest. But that was immaterial. Sandy could take over the controls for part of the flight back to New York.

The Scarlet Stormer was speeding low over the Bashi Channel between Formosa and the Philippine Islands. It was just two hours after his victory over the Dragon when, without a second's warning, a biplane hurtled down from the clouds ahead, guns streaming. Bill saw it barely in time to throw the amphibian out of range. But he was almost paralyzed with surprise. It was the Thunderbolt.

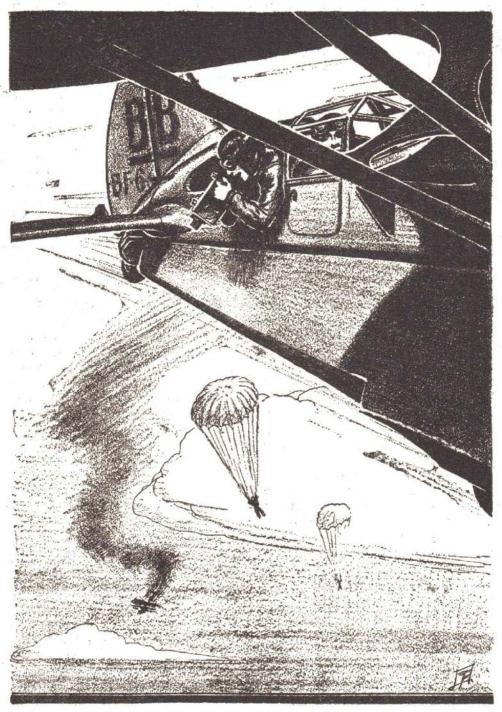
## XV-THE ATTACK

BILL'S mind could scarcely comprehend what had happened—the Thunderbolt!

He had thrown the Scarlet Stormer swiftly up and away from the plummeting biplane. It screamed past. One man occupied the cabin—Cash Gardhouse.

Bill's eyes followed it. There was no mistake. On the fuselage was painted in large block letters—The Thunderbolt. The official numeral 9 was also printed on the fuselage and the wing surfaces. The inverse stagger of the wings, the streamlined landing gear, the retractible wheels—there could be no mistaking it.

But it seemed almost unbelievable.



Bill glanced around. Sandy wasn't missing a trick. He had his camera out and was preserving in film the story of the Thunderbolt's flaming death.

The biplane had been ahead of the pack; it had been racing for Tokyo three and a half hours ahead of the Scarlet Stormer; its pilot had boasted that he would arrive in Japan in record time. And now it was here, over the China Sea, attacking him!

Bill shook his head groggily. It didn't make sense. First the *Drugon* and now the *Thunderbolt*. The race had deteriorated into a slashing free-for-all with the Canadian plane racing on ahead alone.

The Thunder bolt had come out of its dive and was zooming wildly. Bill swung his big machine around to head back. If it was a fight, he was in it. His face was expressionless. Gardhouse had tried to knock him down by a sudden surprise attack. He had been the aggressor. The coming engagement between the two racing planes would be a death fight. One or the other would be left to streak on to Tokyo. The defeated plane would go down.

The biplane came sweeping around in a tight Immelmann. Bill retarded the throttle and pulled back the stick. His fingers were on the firing trips, his eyes squinting along the gun sights. He heard Sandy shouting:

"Get him, Bill!"

He got a flash of the boy in the rearview mirror. Sandy was crouched forward in the seat, holding his inevitable movie camera.

The Thunderbolt was now charging furiously down on the amphibian. Long before he was within range, Gardhouse began firing. Bill waited. The scarlet bullet under him tore at blurring speed to meet the attacker. Fire was lacing out from the biplane's stationary guns. It probed nearer and nearer the Scarlet Stormer.

Bill held his fire. At the last possible moment he threw the throttle wide open and jerked the stick full back. The Diesels bellowed. The amphibian leaped up under the full drive of the two

propellers. The lines of bullets tearing out from the *Thunderbolt* churned past underneath.

The two ships passed with a swish. Bill didn't wait a second. The situation was as he had planned. He kicked the rudder, threw the stick over. The Scarlet Stormer screamed around and in the next second was pounding down on the Thunderbolt.

Gardhouse saw the pursuing machine barely in time. He threw the biplane into a frantic sideslip. Bill's speed was terrific. The *Thunderbolt's* cowled engine flashed across his sights. His fingers jammed down. The two .50-caliber guns roared. The fiery stream swept across the biplane's engine and then he was past and again pulling his racing plane into the skies.

As he swung around, Bill's eyes widened in amazement. Smoke was sweeping back from the biplane's engine housing. His first burst of fire had been lucky. The Thunder bolt pulled steeply around. It had more altitude than the Scarlet Stormer. Bill saw it head down for him. He pulled back the stick to meet it.

Behind him he had a momentary impression of Sandy taking movies of the fight. The boy was pressed against the cabin glass, holding his machine rigidly.

Bill had the Scarlet Stormer's nose pointed at the oncoming Thunderbolt. He saw that the wind was beginning to whip the fire into flames. Black smoke was billowing up from the engine. The Thunderbolt was definitely finished, but Gardhouse was firing his guns wildly.

Bill pulled the Scorlet Stormer away. His eyes were bright. With the Dragon and now the Thunderbolt destroyed, there was only one plane to be overtaken. The climax of the fight had come with stunning rapidity. His eyes were on the oncoming biplane, but he was scarcely prepared for the insane maneuver that took place. Gardhouse's flaming guns stopped firing. The

Thunderbolt swung around to aim directly at the amphibian. Its engine was wide open. Its speed was terrific. Gardhouse was going to ram the Scarlet Stormer.

BILL'S blood turned to ice. He saw the *Thunderbolt's* pilot leap through the cabin door and fall free. The biplane was tearing straight in on the *Scarlet Stormer*—a plane without an occupant, a flaming runaway. The fire was now streaming up from its engine. Tongues of flame streaked back.

Bill horrified, threw his machine desperately to one side. There wasn't much time. The recklessness of Gardhouse's move had caught him napping.

It was a last desperate effort.

The Thunderbolt streaked past, barely missing the upraised right wing of the amphibian. Bill leveled his machine off. Far below he saw that the parachute had opened, and Cash Gardhouse was floating down. And in that glance he saw also that a small speedboat was racing across the surface of the water toward the spot where the man would alight.

Bill threw open the throttle and went after the Thunderbolt. It was turning into a raging furnace. He dived alongside, streaked past it. He heard Sandy yell wildly. The kid was pressed against the cabin window, the movie machine to his eye, the sights trained full on

the blazing ship.

The flames were lashing back, licking along the fuselage. The name "Thunderbolt" was beginning to be eaten away. It had all happened in split seconds. Bill's blood raced in his veins. That first burst of his had been lucky—damn lucky!

Sandy was getting pictures of the whole disaster. He kept his sights trained on the biplane as the whole structure became a flaming furnace. It was falling headlong for the water.

Bill followed it in grim fascination.

Everything had happened so suddenly two of the leaders gone down before his guns.

Cash Gardhouse was rapidly dropping toward the sea. The boat was circling around below him. White lines of foam traced its erratic course.

The Thunderbolt became a ball of fire. Its speed seemed to increase. In one blazing sprint it hurtled to the water and crashed. A cloud of steam shot up. A flash of flame twenty feet high darted out. And then the water claimed it.

Bill pulled the Searlet Stormer away. He found himself shaking from the excitement and strain. The Thunderbott gone! He heard Sandy's excited voice.

"I got it all on the film," the boysaid. "The whole works!"

The Scarlet Stormer banked around, streaked past the dangling figure of Gardhouse. The boat below circled on. The pilot of the Thunderbolt would be picked up. That's all Bill wanted to know. He threw open the throttle and without a backward glance headed his scarlet machine into the east.

NIGHT was swooping swiftly down over the land and sea. It came without warning. The light faded as if some master electrician was turning off bank after bank of lights. The sky dimmed to a fiery red, then purple—then it was night.

The Scarlet Stormer swept on. Bill's thoughts were milling as he got on his course again. Even now it seemed incredible that the Thunderbolt was gone. Ever since he had left New York, the fast biplane had been the one he knew he had to overtake. And it had led the pack at every control point.

The course ahead was clear. Only the Canadian plane remained to be over-

taken.

But somehow the whole thing didn't seem right. The Thunderbolt had left

Bangkok three and a half hours before he had. What had happened to it? What had made it lose all its speed?

Bill's eyes were thoughtful. He remembered what the little mechanic had said at the last stop. The *Thunderbolt's* engine had sounded sour to him—instead of establishing a record the ship would be lucky if it got to Tokyo, the man had maintained.

Had the engine gone sour? Had Gardhouse, realizing that he had shot his bolt, radioed for a boat to come to pick him up? Had he laid in wait for the Scarlet Stormer to pass so that he could blast Bill out of the race as well?

Bill shook his head groggily. Nothing made sense. All the way from Parker Field he had been worried about overtaking the *Dragon* and the *Thunderbolt*. And now they were gone. But instead of being relieved, a strange, uncanny feeling swept over him. There seemed to be wheels within wheels. On the face of it, everything looked clear. Ahead there was only one plane to beat. And yet—

He tried again to raise Red Gleason on the radio without success. The Scarlet Stormer was rushing through the night, dead on its course.

THE SCARLET amphibian arrived over the Tokyo airdrome at six o'clock Monday morning, local time. The early sunrise was sweeping across the skies. Sandy had the hatch thrown back and was busily taking movies of the country below.

A Japanese military plane swept past as Bill closed the engine and went down for a landing. He taxied the Scarlet Stormer over to the long apron that stretched in a semicircle in front of the hangars.

A sleepy-eyed official greeted him, yawning. Bill was signed in. A group of mechanics ran over from a hangar to the amphibian. Bill asked the man in charge about Red Gleason.

"Sure, he's here, Mr. Barnes," replied the chief mechanic, an American. "His radio's been on the bum, sir." The man pointed. "He's in there sleeping. He didn't expect you so soon."

Sandy came out of the cabin and stretched. He took a quick, sweeping picture of the airdrome and then put his movie back inside the cabin.

Bill ordered the ship refueled. The mechanic in charge had worked for years at his field on Long Island. He could trust him.

"Get her set to go," Bill told him.
"I'll find Gleason."

He called Sandy and together they crossed the concrete and entered the pilots' frame building. There were few people at the field, and the building seemed deserted. A line of doors opened off a large dining room.

Bill stood in the center and roared: "Red! Red Gleason."

A muffled reply came from the left. A door was slung open, and a carrotheaded man looked out. His eyes widened.

"Bill! For the love of Allah!"

He ran out, his hand extended. "How'd you get here so fast?" he said.

Bill looked at him. "I didn't get here any faster than my usual speed. We cleared out of Bangkok at four o'cleck yesterday afternoon."

Red's mouth fell open. "Four o'clock! Well, I'll be—" His eyes narrowed and he jammed a forefinger at Bill. "There's something queer somewhere. The radio on the Snorter is on the fritz. I don't know what's wrong. Looks as if some one wrecked it intentionally. When I couldn't raise you with the set I phoned Bangkok. A guy told me there that you hadn't left until seven last night."

"When'd you phone?" asked Bill.

"I thought I could get the radio working. I struggled with it for a long time and then gave it up. I phoned just before the Thunderbolt landed here—about—"

"The Thunderbolt!" Bill roared.

Red stepped back and blinked. "Sure, about—"

Bill grabbed him by the arm. His fingers sank into his flesh. "You mean the *Thunderbolt* landed here? You mean that Cash Gardhouse brought his ship here?"

Red was aghast.

Bill's eyes were blazing.

"What's wrong, Bill? You going crazy? The *Thunderbolt* landed here about twelve thirty last night. It took off in half an hour—at one."

# XVI-TRICKERY

BILL was shaken. He glared at Red. The man must be insane. The Thunderbolt had gone down in flames. It had been destroyed. And Red was saying that it had landed and taken off again.

"Bill, what's wrong? What's happened?" Red's voice was alarmed.

"The Thunderbolt crashed in flames last night," replied Bill. "You must be crazy."

"There was a fight. Bill shot it down —just before dark," Sandy put in. "We both saw it crash. I got pictures of it with my movie camera."

Red looked from one to the other, his eyes wide. "But I tell you the Thunderbolt landed here. I saw Cash Gardhouse myself. I was talking to him. Every one around here was excited. He'd set up a new speed record between here and Bangkok. Did it under eleven hours."

Bill passed a grimy hand over his face. His mind spun dizzily. The *Thunderbolt* had fallen to destruction before their very eyes.

"You mean to tell me, Red," he asked slowly, "that you actually saw the *Thunderbolt* arrive and actually saw it leave?"

"Honest, Bill! I tell you, I was talking to Gardhouse. He was all puffed up about getting here so fast. And all alone, too. They let him have a mechanic for the flight back to New York."

"Something's haywire," said Sandy.

A sudden thought swept through Bill's seething mind and left him numb with horror. It was the only logical conclusion to draw from what had happened. The Thunderbolt had definitely fallen in flames before his guns—and the Thunderbolt had definitely landed at the Tokyo airdrome and taken off again at one o'clock that morning. There must have been duplicate planes—two Thunderbolts!

BILL told Sandy and Red his conclusions. "It's the only explanation. There's no other way. Sam Weir has slipped over a fast one. That explains all this talk about the mysterious superspeed of the *Thunderbolt*.

"They were just planting it in every one's mind so that when the time came for the switch, one *Thunderbolt* could take the place of the other and gain hours by doing so. The new ship was probably hidden somewhere near by. When the pilot got the word that the other ship was through, he took off and landed here—setting a new speed record!"

Red's face was screwed up in a frown. "Wait a minute! How about the pilots? I swear on a stack of Bibles that it was Cash Gardhouse I was talking to."

Bill's face clouded. Cash Gardhouse couldn't be in both planes. He began to wonder if the *Thunderbolt* had crashed; if he had been having mental nightmares. Yet Sandy had been there. The kid had seen it.

"By golly!" Sandy bellowed out. His eyes were round as saucers. "By golly, Bill! I know. I know how they did

it. Cash Gardhouse has a twin brother! I saw him a long time ago!"

Bill whirled around. "If this is a gag, I'll wring your neck, peewee! What about that twin brother?" His words whipped out. That was the solution—a twin brother!

Sandy stuttered in his excitement. "When I was a kid, out in the Middle West, I knew him. His name was Killer Galt. He was a murderer. I helped to catch him." The boy's words came out in a blurted stream. "He was taken to prison and escaped to Mexico. We heard later that he'd been killed down there. He had a twin brother. I know that for a fact. And he was an aviator."

"Are you sure about this?" rapped out Bill.

"Honest! When I first saw Cash Gardhouse back at Parker Field he looked familiar. I tried to place him. That's when I remembered Killer Galt. They looked exactly alike. I thought about it a lot. I know darn well he had a twin brother."

Bill sucked in his breath in amazement. The whole plan suddenly swept sharply defined before him. He crashed his right fist into the open palm of his left.

"That's it! Cash's brother lammed to Mexico. But he wasn't killed down there. He's the man who's now flying the duplicate *Thunderbolt*. A murderer—a bad man in Mexico."

His eyes were blazing with a strange light. "Don't you see it now? The Green Death—only men who had once been members of the border patrol were killed by it. Why? Because they might link up Cash with his killer brother."

Sandy broke in: "You think Cash's mechanic was killed by the Green Death down in Bangkok because—"

Bill cut the boy off: "Because if the duplicate plane carried a different mechanic every one would get wise. They had to get rid of him. Cash had to take off alone, so his twin could land here alone."

The plan had been diabolically brilliant. Only one man could have thought of such a master stroke—Sam Weir.

The duplicate *Thunderbolt* had taken off from Tokyo bound for New York five hours ago—a conditioned plane, a fresh pilot, a time handicap. It would be almost impossible to beat it.

"We're sunk," said Red. "Of all the damn tricks! If I ever get my hands on Sam Weir I'll—"

"Wait!" thundered Bill. He spun around to face Sandy. "You got pictures of the *Thunder bolt* going down in flames, peewee?"

"Sure! Swell shots! The film's in the camera in the plane."

"O. K.," Bill returned. "The new Thunderbolt will probably cross the finishing line first, now. Let it! We'll show that film to the officials. Sam Weir won't have a leg to stand on. Those pictures will show clearly the name and number on the ship. It'll be obvious. We'll blast Weir's clever trick around his ears."

"Gosh, yes!" said Sandy. "That's sure proof—those pictures. They'll be clear as anything. Everything will show. Golly, Bill, we aren't beaten yet!"

Bill wiped the sweat from his forehead. "It's the only thing we can do. There isn't much chance of overtaking that ship now. Which way did she go, Red?"

"Heading up along the Aleutian Islands, to Alaska and down through Canada—that's the dope I got. Taylor, the Canadian, is going the same way."

"When did he leave here?"

"An hour ago. About five o'clock."

THE TALL airman's face was thoughtful. From Tokyo to New York any route could be taken. The safest but longest way was by the northern

route, the course the two planes ahead were taking. The most direct way would be straight across the Pacific with a stop at the Hawaiian Islands.

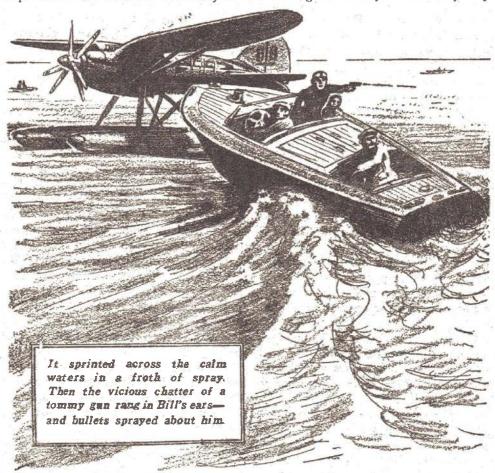
But such a flight would be terribly dangerous—a water jump, thousands of miles in length. It had never before been accomplished.

"Get outside, Red, and watch the ship. Have her refueled and ready to "Couple of cots in there. I'll order you some chow."

Bill and Sandy headed for the small room as Red went outside.

"I know after we show the judges that film it'll prove that the *Thunderbolt* is a phony," said Sandy. "But, golly, I'd like to sail across that finishing line right smack in first place."

Bill sighed wearily. "The only way



go in two hours. We'll get some sleep. We'll take the northern route, too. It'll be impossible to overtake the fake Thunderbolt now. And I should be able to catch up with the Canadian. He's got a mighty fast ship, but the Scortet Stormer's faster."

Red nodded toward one of the doors.

we could possibly beat him is a jump across the Pacific. That's out of the question. We're all in need of sleep. Forget about the *Thunderbott*. We'll fix its hide when we have a showing of that film."

He had barely stretched out on the small cot when the door banged open.

Red Gleason hurtled through. His face was white, his eyes wide.

"Bill! They've destroyed the camera and the film! Burned it!"

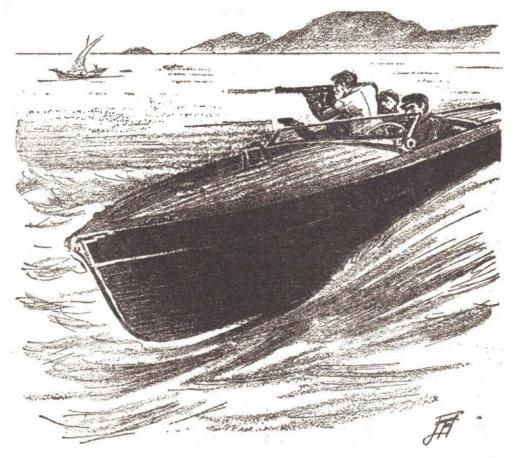
### XVII-THE ONLY WAY

BILL sprang to his feet. "What!"
Red's hands were knotted into tight
fists. "Jap authorities. They saw

Bill grabbed his arm and slung him roughly back. "Watch it, peewee!" He looked back at Red. "They're completely destroyed?" His voice was dull."

Red nodded dumbly.

All the life and spirit seemed to ooze out of Bill. He slumped back onto the cot. There was nothing now that would prove the trickery. His word and Sandy's against the others. The



Sandy with the camera this morning when you arrived. Said you were taking pictures of their fortifications. It's against the law. They had burned them just before I got out there."

"The dirty crooks!" Sandy's face was blazing with anger. He came off the bed in a bound and rushed, head down, for the door.

planes undoubtedly had been carefully constructed to be exact duplicates. Even the twin-brother angle was unbreakable.

Killer Galt probably was officially dead. When Galt arrived back in New York he would assume the life and identity of his twin brother, Cash Gardhouse. And Sam Weir would make

sure that Cash didn't come into the picture ever again. The pilot was as good as dead now.

There was only one way,—they had to

beat the Thunderbolt in.

Bill stood up. "How soon'll the ship be ready?" he asked, his voice harsh.

Red looked at him. "Why, you aren't

thinking of-

"How soon will it be ready, I said?" "It'll be refueled completely by seven o'clock."

"O. K. We're leaving then." Bill's eyes were narrowed. He turned to Sandy, "Cram as much rest as you can into you, kid. We're leaving at seven. Honolulu first stop!"

Red drew back. "Hell, Bill! Why, that's almost suicide! You'll-

"Get out to the ship, Red, and don't leave it. Telegraph Honolulu to have the necessary fuel at Pearl Harbor. The same thing at Los Angeles. Now. beat it!"

AT FIVE MINUTES to seven Red came back into the room. Both Bill and Sandy had managed to go to sleep. He awakened them with difficulty. Food was waiting. They sat at a table and ate. Bill didn't talk much. His mind was in a turmoil. It was a long shot, the flight they were taking. He didn't mind taking the risk himself-but the kid. He put down his cup of coffee and turned to Sandy.

"I'm going alone," he said quietly.

"You'll stay here with Red."

Sandy didn't reply. The expression that flooded his face was stronger than words. Moisture came to his eyes. He bit his tip and blinked.

Bill looked away. The kid was staring at him as if Bill had ordered him

shot.

"You-you just can't-honest-you can't!" said Sandy. His small freckled hands bunched the tablecloth. "Not after-everything, Bill."

The tall ace stirred his coffee. "It's

too risky, peewee. But I've got to take the chance. Every one's gambled on my coming through ahead in this race. If I fail I'll be letting down the gang. If I fail-" He cleared his throat. "Well, I might as well never arrive."

Sandy swallowed hard. "I'm going with you, Bill. You promised me that I'd go in this race. You're breaking your promise. If we don't get there He rubbed a hand across his "That'll be-O. K., Bill. I'm brave enough to go—if you're with me, Bill."

Emotion fought across Bill's face. He kicked back his chair and got up. "All right," he said huskily. "You win -come on!"

A SMALL CROWD had gathered around the Scarlet Stormer when Sandy and Bill came outside. The official business was terminated. The scarlet amphibian was signed out. climbed into his place in the cabin. The engines were running smoothly. Red stood beside Bill in the slipstream.

"Everything O. K. at Honolulu," Red bellowed in Bill's ear. "Stuff will be ready at Los Angeles. I put plenty of food in the locker inside." He stuck ont his hand. "Good luck, Bill!"

Their grips locked tightly.

"Good-by, Red. You'd better start pronto for Borneo. Get Shorty out of that mess, somehow. I'll be heading back after the race-if you don't get him, fella."

Bill turned away and quickly climbed into the cabin. Inside he buckled on his 'chute, plugged in the helmet wires.

"O. K., kid?" he said to Sandy.

The boy flashed him a quick smile. "O. K., Bill."

Bill flipped up a hand in farewell. The crowd was cheering. The Scorlet Stormer trundled along the runway and raced into a low, hurtling take-off.

On to Honolulu!

But it was the only way. A terrific gamble—with the odds stacked high against them. Storms would blast across that desolation; terrific winds would blow; the elements would fight to drag the glistening scarlet bullet down to its destruction.

It had to be done.

Bill spoke to Sandy over the telephone after they had been out ten minutes. "I'm taking her as high as I can. We'll make extra speed with the flaps and the adjustable props. Have to use the oxygen."

The Scarlet Stormer was steadily climbing. Bill held the heavily loaded ship up and up. The altimeter crawled. The cabin was sealed and the oxygen turned on. Bill worked the flap crank and adjusted the pitch of the two whirling propellers.

His whole being seemed to work auto-He was dead tired. matically. nerves were frayed. His stomach burned. But they had to reach Honolulu as fast as possible. The duplicate Thunderbolt had a long lead. Taylor, the Canadian, had taken off two hours before. The two other ships' routing to the north would naturally take them longer. The Scarlet Stormer's only chance of even hoping for victory lay in the daring Pacific flight.

The tall pilot squirmed in his seat to a more comfortable position. If everything went well they would reach Honolulu at dusk, Hawaiian time. "Sandy," Bill said again. "We'll be crossing the international date line. I'll tell you when. You'll have to adjust the local time clock. We gain a whole day there. It's Monday on this side and Sunday on the other."

Bill turned on the radio, called Tony Lamport at the Barnes air field on Long Island. After some difficulty he got through. He learned that no reports as to his rivals' positions had reached New York.

He thought a moment.

"When they do," he said into the microphone. "Let me know right away, Tony."

Bill clicked off the radio and settled back. They were already at twenty-six thousand feet and still climbing. Four thousand miles to go!

BILL always remembered that flight as a hideous nightmare. After a while Sandy relieved him at the controls. They are sparingly. The engines droned on and on, until their eardrums ached. Terrific electrical storms were met and run through. Cyclonic winds crashed broadside into the speeding plane and hurled it miles off its course.

A radio contact with Bill's Long Island field was abruptly terminated. Something happened to the mechanism. Bill tried to use the radio again without any success. After that their contact with the outside world was swept aside. Bill slept in cat naps, awakening always in sudden horror, his body drenched with sweat.

The high altitude added speed and spared them the full fur of the storms that roared below. For hours upon hours the view of the Pacific was wiped away. They flew blind in a world that was nothing but clouds and sky. The mental strain was beginning to tell; the constant desire for speed; the horrible fear of impending disaster; the bodily torture.

On and on, minute after minute, hour after hour. No stopping; no resting. On to Honolulu! The substitute Thunderbolt had to be beaten, the Scarlet Stormer had to flash across the finishing line the winner. On and on!

It seemed as if days were passing. They are again and again, nibbling at sandwiches that tasted mealy; drinking coffee that was lukewarm and weak, Bill flew automatically. The Scarlet Stormer had to reach Pearl Harbor safely. Speed!

It seemed that it was never going to cease; that they were destined to fly like this forever. Bill felt his head reeling. He forced himself to watch the instrument board. The dials danced before his eyes. He called Sandy to take his shift. Bill dozed fitfully. He went back to the pilot's seat.

On and on!

The Scarlet Stormer raced on at a terrific clip through the rarefied air. The Diesels pounded; the two propellers dragged the bulletlike plane through space in blurred passage. Speed! They were going to overcome that time handicap—they had to.

Sam Weir wouldn't get away with it. He had engineered a crafty coup, but he was going to be beaten. The Scarlet Stormer was going to hurtle through to win. Bill tried to force the idea into his head, but it didn't seem to stick. There was a long way yet to go. Anything could happen. He had no idea of the positions of the other two planes.

The sun was dropping in the western sky. The day was speeding away. Renewed life swept through Bill. They were nearing the end of the long water jump—or should be. Thick furry clouds blanketed the regions below. He was forced to fly blind.

The local time clock showed eight thirty in the evening when he moved the stick forward. The Scarlet Stormer sped down through the clouds. At fifteen thousand feet they plummeted through. It was dark, but the lights from the islands showed below—the Territory of Hawaii. Honolulu lay a few miles ahead.

Elation swept through Bill's tired body. The first part of the water jump was almost over. Sandy was excited. His lined, drawn face brightened.

The lights of Honolulu showed ahead—civilization—people. The Scorlet Stormer streaked down across the city. Pearl Harbor was illuminated. Bill banked around and came back, sinking lower. A searchlight swept across the night-filled skies and bathed the amphibian in its dazzling white light. It seemed to constitute a signal. Flood lights swept over the harbor below.

Bill went down and landed. They had arrived!

A launch spurted out from the shore toward them. Bill pushed back the hatch and pulled himself up. He found himself shaking. His head was spinning dizzily. The constant strain had taken everything out of him.

A naval officer greeted them boisterously from the launch. They were to come ashore until the refueling was finished.

A fuel boat was already on its way to where the Scarlet Stormer lay. It was in charge of naval men.

Bill stepped into the launch after Sandy. They both wore their parachute harness.

Bill turned to the lieutenant. "I don't like to leave the bus out here," he said anxiously. "Anything could happen."

The officer gestured to the sailors on the arriving boat. "We've arranged everything. Those boys will make sure nothing happens. They're armed. Don't worry. You both need food and rest—come on."

Bill was too exhausted to argue. If the navy was taking hold, everything would be O. K. The launch sped toward the shore and swung alongside a low, landing pier. They got out and went up the hill.

EVERYTHING was done for the flyers' comfort. They sat down to a hot meal. The radio had been turned on in the room. So far nothing had been heard from the *Thunderbolt* or the Canadian. But news was expected any time.

The broadcast came from New York. The announcer was giving details about the race. Bill heard his name mentioned over and over again. He was drinking his second cup of coffee when the radio announcer in far-away New York said:

"We have just received a flash from Honolulu. Bill Barnes and Sandy Sanders landed at Pearl Harbor a few minutes ago after a long overwater flight from Tokyo. Their famous Scarlet Stormer is being refueled, and they plan to start out again right away. Their next stop is Los Angeles. The round-the-world air race is coming to a dramatic finish.

"Cash Gardhouse in his Thunderbolt and Cyclone Taylor in the Canadian plane are dashing in from the north—and from the west hurtles Bill Barnes—a neck-and-neck finish. We are awaiting reports on the progress of the other planes on the northern route. They are expected momentarily.

"Massed behind the three leaders is a group of planes, roaring along the course. They all have a chance. Anything might happen. The latest bulletins will be broadcast to you intermittently. The finish is at Battery Park, New York City."

The announcer's voice sharpened with excitement. "A report just arrived. The *Thunderbolt* has landed at Seward, Alaska. Gardhouse is having his plane speedily refueled and will get away immediately."

Bill came to his feet with a lurch. He grabbed Sandy by the arm. "Come on, kid! The *Thunderbolt* at Seward! We can't waste a second."

The naval officer was startled. "Aren't you going to get any rest, Barnes?"

"No. Can't afford the time. The *Thunderbolt's* got hours on us yet. We have to push on for Los Angeles."

A sailor came to the door and saluted. "Refueling completed, sir. Everything's all set."

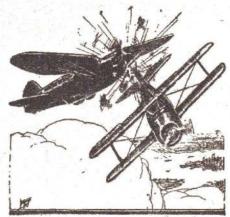
"Good!" said Bill. He started for the door.

"You'll crack under the strain," protested the officer. "You can't keep that sort of thing up."

Bill didn't wait. They had to keep it up if they were to win the race. As he went outside he heard the announcer's voice from the radio say:

"No report on the Canadian flyer yet. He is thought to be hours behind the *Thunderbolt.*"

Bill was out of earshot and heading down toward the wharf where they had debarked from the launch. A strong wind was blowing from the west. It whipped across his face and brought the blood rushing to his cheeks. The parachute hit against the back of his legs as he ran. People were grouped.



Full circle—the end of the race.

along the illuminated wharf below. More were arriving by the minute, swell-

ing the crowd.

The word had spread around of his arrival. The crowd might delay their return to the Scarlet Stormer. Every second counted. The bogus Thunderbolt was still ahead. Bill turned around to shout at Sandy to hurry when the shadowy figure of a man emerged suddenly from the blackness and collided violently with him.

The impact threw Bill back. The man staggered against him, his hands pawing. As Bill strove to regain his balance he felt the man's fingers fasten on his parachute ring and pull. Bill made a grab at him and missed as the fellow whirled and plunged into the night.

Bill was thrown violently to the ground as the folded silk of the parachute dropped from the opened pack, and the driving wind caught the small pilot chute. Immediately the whole great balloon had billowed out. The wind swept in, filled the envelope. Bill was jerked off his feet and dragged with it.

In a rage he pulled the shroud lines to him as he was dragged across the ground. The 'chute collapsed. Sandy and the officer raced up.

"What happened?" demanded Sandy.

Bill furiously unbuckled the harness.
"A native bumped into me—yanked the rip cord. The 'chute opened." He let the harness drop. "Come on!"

THE ACT had been premeditated; something more to delay him. If Bill wanted to wear a 'chute during the rest of the flight he'd have to pack that one again, and that would take hours. He turned away.

"Aren't you taking this with you?" asked the officer, gesturing to the mass of billowing silk.

"No. I'd have to fold it first," replied Bîll. "It'd take too long."

"Bill, that'll mean you won't have a 'chute during the rest of the flight," said Sandy.

"I know that." He had the boy by the arm and was heading for the wharf.

"I'll get you one," said the officer.
"I'll borrow one for you—somewhere."

"Never mind. Forget it."

Bill's voice was sharp. He wouldn't need a parachute. He'd arrive in New York in the Scorlet Stormer or he wouldn't arrive at all. The parachute ineident had, all in all, been trivial, but it jolted him into full consciousness of the dangers that still clustered over and messaced him.

Sam Weir would be desperate when he heard the reports of the Scarlet Stormer's progress. If he had made efforts to stop Bill's progress in the past, he would redouble them now. Bill was suddenly wide-awake to possible and probable danger.

They had stepped into the launch. The officer had followed. The vessel was manned by three navy sailors. Bill had voiced his suspicions of impending violence. The officer had ordered the men to have their revolvers free for instant use. The launch had nosed out into the black waters in the direction where the Scarlet Stormer lay.

Bill was standing in the stern, his eyes probing the darkness. To his right, above the roar of the launch's engine, came the thunder of a powerful motor. Nervously he had clawed for his automatic, held it grimly in his hand.

The heavy pounding of the motor grew louder and louder. Premonition warned Bill even before the fast power boat streaked past and the machine gun opened fire. He whirled around as stabs of crimson fire broke from the racing power boat.

His finger tightened on the trigger. He shouted a hoarse warning as bullets spewed from the weapon in his hand. The automatic bucked as the clipful of bullets streamed out. The sailors had whipped into action. Revolvers crashed.

The attacking power boat streaked away into the blackness, the machine gun still firing. Suddenly Bill felt something burn across his right arm. He was thrown back, half fell. He had been hit.

### XVIII-AMERICA

THE ATTACKING power boat didn't return. Police later found it beached, with two dead men lying inside. They had been killed by gunfire. The launch sped on its way to the plane. Bill sat in the rear, holding his arm.

"You can't go on with that wound," said the officer. "You'd better come back and get it dressed."

Bill's face was savage. On the last lap to get this! But he was determined to go on. "Don't they teach first aid in the navy?" he asked furiously.

"You'd better do what he says, Bill," Sandy put in. "You'd better get it fixed up right."

"We're going on," replied Bill flatly. "That's that!"

They swept to a pulsing stop beside the *Scarlet Stormer*. Sandy was sent up to get the first-aid kit from the plane.

When it was thrown down, one of the sailors worked over the bullet wound. The man was far from being a novice. He worked with skillful precision. The wound wasn't serious. The bullet had plowed through the fleshy part of the upper arm. He cauterized the wound, bandaged the arm.

When it was finished, Bill climbed up into the cabin. His teeth sank into his lower lip. The pain was pretty bad; but they had to go on. Any more delays would be fatal.

The ship had been completely refucled. Even the break in the radio mechanism had been found and repaired. Bill leaned out to shout his thanks to the naval officer below.

The man saluted. "Give 'em hell, Barnes! Best of luck—and happy landings!"

The engines were started. Bill waited, watching the temperature. On to Los Angeles! Another gigantic water jump faced them. But they had conquered the long stretch from Japan, and the next one simply would have to be spanned.

Then everything was ready. Bill opened the throttle and blasted the Scarlet Stormer off the flood-lighted harbor waters. The big machine climbed into the night, its Diesels pounding.

Bill sat grimly in the pilot's seat. His right arm ached dully.

Everything had gone against them. He held the stick back and climbed for altitude, the bullet-shaped nose heading northeast.

Again the cabin was sealed up and the oxygen tanks turned on as they reached a high altitude. Bill worked the radio and got in touch with the operator at his Long Island field. Nothing more had been reported of the *Thunderbolt*. And the Canadian flyer hadn't been sighted at Seward, Alaska, yet.

The skies were black with night. No stars showed. A sharp electric storm broke around them. It was of short duration. The Scarlet Stormer roared steadily on.

Endless flight.

Bill stayed at the controls despite Sandy's efforts to force him to rest. He held his wounded right arm in his lap. The gnawing ache continued with nervestraining persistence. His whole body felt as if he had been lashed. His eyes burned behind the amber-tinted goggles. But the excitement carried him on.

The Thunderbolt was tearing from Seward to New York. The Scarlet Stormer streaked at top speed from Honolulu, Bill's heart galloped. Would he get there first? How much advantage had the *Thunderbolt* now? He listened eagerly for radio reports, but none came.

AFTER FOUR hours of steady flying Bill turned the controls over to Sandy and went back to try to relax and sleep. He did neither. He stared out of the window as the night streamed past. His whole being was shrieking for speed—more speed.

He had lived this race for months now. Everything, every thought and every action, had been pointed to the time when the Scarlet Stormer would be pitted against the best aircraft the world could offer in the grueling air race around the world. And now it was reaching a close. Soon, the long battle would be finished.

After a late start and a mighty struggle, he was fighting for the lead with another contestant. At every turn of the powerful propeller they were getting nearer and nearer the States. New York lay on the other side of the continent. The first one to the finishing line would win.

He thought again of the trickery to which Sam Weir had resorted. But the Scarlet Stormer was overcoming all the set-backs and racing on and on. If the race had been run fairly, the big amphibian would have shown its heels to the rest long ago. But that didn't matter now. The handicaps had forced Bill to take chances, to drive himself harder.

He moved forward and once more slipped into the pilot's seat that Sandy was vacating. The projectilelike ship was flying evenly. The weather was ideal. On and on! A radio report came through. The *Thunderbolt* was coming down through the Yukon Territory. Cyclone Taylor, the Canadian, had landed at Seward.

Bill hunched forward and glared through the windshield. The blackness raced to meet him. He couldn't keep this up much longer. The strain was terrific. His whole body was tortured beyond human endurance.

On and on—speed—the nightmare that had been interrupted when they had landed at Honolulu seemed to well up again. Bill sat like an automaton in the cockpit and flew his giant ship by sheer instinct. He was almost through. He couldn't last much longer. The bullet wound had come as the last straw. Anything more and he would be finished for good.

Storms buffeted them. The night vanished under the constant flaring of lightning. The storm area was passed, only to be replaced by another—then out of that again. Radio reports crackled in his ears from Tony Lamport in New York. The *Thunderbolt* was now racing across British Columbia; the Canadian ship had long since left Seward.

Speed—speed! His whole being seemed to be pounding with the mighty drive of the engines. On to New York! Get there first—beat the *Thunderbolt*.

The skies lightened with the dawn. Bill watched his instruments and his charts. Stay on the course. Get to Los Angeles. There was no time to waste. The excitement was growing more intense as the time shortened.

He spoke to Sandy. He scarcely recognized his own voice. It was flat and weak. "Check the fuel. See how we stand. If we have enough we won't stop at Los Angeles."

Sandy reported back. There was plenty of fuel. The tanks had been crowded full at Pearl Harbor.

Bill forced his mind into action. If they didn't land at the coast they'd save time. And every minute counted—it would be nip and tuck if they beat the Thunderbolt in. More radio reports. Tony Lamport's voice was excited. The *Thunderbolt* was heading for Edmonton. The news drilled through Bill's dulled mind. Edmonton. His hand went unconsciously to the throttle and pressed against it.

Speed—more speed!

The sun rose ahead. The blackness receded. Land was in sight—the coast of America. Back again to the United States! A thrill shot through Bill's exhausted body. He straightened up in the seat. New life coursed through his veins. Back home again. The continent to cross to New York. The mighty Pacific had been spanned—all its dangers conquered.

Again radio reports. The *Thunder-bolt* had landed at Edmonton, refueled and taken off. The Canadian was behind him streaking across British Columbia.

The radio operator at the Long Island field was rebroadcasting from the official station in New York. An announcer was already down at Battery Park at the tip of Manhattan Island, the finishing line. Crowds were already collecting there, waiting for the finish of the race. The whole country was pulsing with excitement.

The Scarlet Stormer shot high above Los Angeles and kept going. Bill knew that he had to have sleep. His reactions were slowing up, his mind buzzing. He called Sandy forward and went back to the rear. Sleep overcame him instantly, the roar of the Diesels in his ears.

### XIX-TO THE FINISH

BILL AWOKE suddenly, fear clutching at his heart. His mind was dazed. He looked wildly around. Sandy was sitting erect in the pilot's seat; the Scarlet Stormer was hurtling on and on. How long had be been unconscious?

He looked quickly at the clock and spoke to Sandy:

"Where are we?"

"Over Wichita," came the boy's voice. "Just got a radio report. The *Thunder-bolt's* passed Duluth. Taylor's taken off from Edmonton."

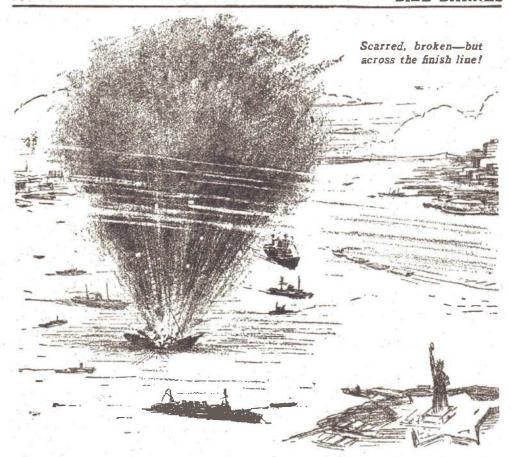
Bill went forward to the controls. The *Thunderbolt* at Duluth. His mind swept to the map. Would they ever beat it in? It was touch and go. He plugged in the radio wires from his helmet. The radio operator's excited voice came to his ears. More reports. The *Thunderbolt* was streaking at top speed for New York. The finishing line was packed with people.

Bill's hand gripped the control column tightly. The short nap had refreshed him. His right arm seemed stiff and numb, but the race was almost over. Not much longer.

His eyes probed through the skies ahead. He saw three specks in the distance. They welled up to become planes—biplanes. He watched them carefully. They raced nearer and nearer. They were below him. The Scarlet Stormer was almost up with them. The three biplanes came roaring up at the amphibian and their guns were blazing.

Bill held relentlessly to his course. His terrific speed carried him past the three attackers before any damage could be done. They were left far behind in the next minute. He had expected some show of violence before he reached New York. But the biplanes' efforts had been puny and futile. Nothing could stop the *Scarlet Stormer* now. The machine itself seemed to have caught the wild excitement. The country swept away far below.

The radio crackled in Bill's ear as he roared high above St. Louis. The *Thunderbolt* had crossed Lake Michigan, had passed Escanaba, was now over Lansing. Again Bill's eyes darted to the map. He found their respective



positions. He was bathed in perspiraton. The finish was speeding in faster and faster. It was anybody's race. The Thunderbolt was still in the lead.

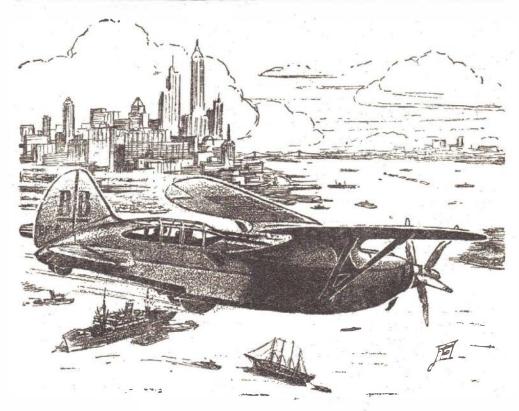
A continuous stream of reports came over the earphones. The turmoil and excitement that was sweeping around the finishing line at Battery Park was rebroadcast to him. The place was packed with people. Boats made the water of the lower bay black. The whole of New York and of the world were watching with bated breath. Two planes racing in for the finish—the third not far behind.

SAM WEIR sat in the captain's comfortable cabin on the yacht, *Greyhound*. He wore flannel trousers; a doublebreasted blue coat covered his slight frame; a yachting cap was pulled down on his head. He smoked a long cigar and listened, eyes half closed, to the radio announcements. Three other men sat around the cabin. Tension was in the air.

The *Greyhound* was anchored near the Battery at the end of Manhattan Island. Six hundred yards beyond was the finishing line, extending from Governor's Island to a point in Battery Park. The line was marked with buoys.

Around the Greyhound the water was packed with vessels of every description. A long stretch for landing had been left clear, down the center of the channel. Beyond, the shores of the Battery were crowded solidly with people. They had arrived early, eager to wait for the thrilling finish of the spectacular air

**BB-6** 



race. Amplifiers sent an announcer's voice booming through the air.

"It'll be close," said one of the men. "The *Thunderbolt's* still ahead. But Barnes is coming like hell."

We'rl flicked the ashes from his cigar. "We'll win," he said coldly. "And if we don't——" He glared across at the yacht captain. "If we don't, you know what to do."

The man licked his lips and nodded. "It's going to be a tough job getting through there, Mr. Weir. All these boats—"

Sam Weir snarled. "You'll get through. If Barnes wins, you're going to take the boat through and plow straight into that damn Scarlet Stormer after it lands. It'll be an accident. I don't care a damn if you tear the bottom out of this scow. You have to wreck Barnes—if he wins. You understand?"

"I understand."

BB-7

The captain nervously wiped his forehead. He shot a glance fearfully out through an open porthole as a police launch streaked past, siren wailing its high scream.

From the radio in the corner were coming staccato reports. The *Thunder-bolt* and the *Scarlet Stormer* were hurtling nearer and nearer. Sam Weir crossed his legs and stretched back. His eyes were almost closed.

"The Thunderbolt passing over Toledo," came the announcer's voice. "The Scarlet Stormer nearing Cincinnati. Canadian plane sighted at St. Paul."

Sam Weir smoked in silence. The ash on his cigar grew.

One of the men spoke nervously, "Barnes must be wise to the two-plane gag," he said. "He'll cause trouble."

Weir straightened up suddenly. The ashes from his cigar were dumped into

his lap. "Of course he's wise, you fool!" he said. "But he can't prove a thing. He'll be dead."

BILL LOOKED down as the city of Cincinnati swirled past. His eyes were narrowed behind the amber glass of his goggles. His lips were pressed into a white line. The excitement and tension increased. The *Thunderbolt* was over Cleveland and rushing on.

Their two courses would soon converge. Bill leaned forward in the cockpit., The finishing line wasn't far ahead. Which one of them would streak across it first? Nerves throbbed in his temples. His mouth was dry, his tongue swollen. The end of the round-theworld air race!

The skies were beginning to dim with approaching night. Hours upon hours had passed since Bill had left Los Angeles. He had lost track of time completely. The radio reports were all that was necessary.

Both planes were over Pennsylvania. New Jersey lay ahead and then New York. The radio brought Bill the news that he was trailing by twenty miles.

The Scarlet Stormer was flying at a high altitude. Bill pushed the stick slightly forward. It would increase his speed. He waited breathlessly. He was creeping up. The radio reports were excited. The twenty miles was dwindling to fifteen. The Scarlet Stormer roared over the New Jersey border line. Bill looked ahead---and saw the Thunderbolt.

Dead ahead!

"Sandy!" he roared. "There it is! Ahead of us! There isn't much more to go. We have to pass it."

The Scarlet Stormer was streaking through the air. Bill pushed the stick harder. The angle increased. The air-speed indicator swept past three hundred and seventy miles an hour.

The plane ahead was growing larger.

They were overtaking it. Seconds counted. The Scarlet Stormer was gaining. The Thunderbolt was five miles in the lead—three—two-one.

The radio was booming in his ears. Bill didn't hear it. His whole being was pointed up to one last smashing effort—overtake the *Thunderbolt*, pass it. There were only a few more miles to go.

Perspiration streamed down Bill's face. The Scarlet Stormer was five hundred yards behind the Thunderbolt. They would be over Newark in a matter of seconds—and New York was just beyond.

The pointed nose of the amphibian was almost parallel with the *Thunder-bolt's* rudder. They hurtled past Newark, blurred streaks in the sky.

Bill's fingers dug into the control column. He was going to pass the *Thunderbolt*. He was almost even with it now. Ahead was Battery Park—the finishing line.

Bill's eyes were blazing. He had the Thunderbolt beaten. He knew it. The Scarlet Stormer's speed was greater; it had been overhauling the biplane by the second. He'd pass Weir's plane before they reached the finishing line. Beat it—he would!

The pilot of the *Thunderbolt* must have reached the same conclusion. He must have realized that he was beaten unless he did something. And he did it.

His move was one of sheer desperation. He may have hoped to force the Scarlet Stormer to pull up steeply into the sky to avoid a collision; he may have hoped that by doing so he would have a chance to cross the finishing line first.

Whatever his thoughts and plans had been, his action looked like a deliberate effort to disable both planes. For as the Scarlet Stormer inched up on the Thunderbolt, Killer Galt swerved his hurtling plane diagonally across in front of the Scarlet Stormer.

Bill's heart almost stopped. He saw

the Thunderbolt flash across. He jerked back the control column. His reaction was practically instantaneous; but nothing could have saved a crash.

The Thunderbolt's empennage swept in front of the zooming Scarlet Stormer. The amphibian's two whirling propellers slashed into the Thunderbolt's tail unit, shearing it cleanly away. In the next fraction of a second the Scarlet Stormer was past and streaking nose up for the sky. An ear-shattering grinding came from the engines.

Bill cut the switches. His hand tightened on the control column. He eased the ship into a neutral position. The Scarlet Stormer leveled off. It reeled drunkenly. New York harbor was dead ahead. Horror paralyzed Bill's mind. His ship was staggering, lurching out of control.

Sandy's wild yell blasted in his ears: "Bill! The Thunderbolt's gone! Look!"

Bill's eyes flicked down and widened. The *Thunderbolt* was falling like a plummet. Below, the water was packed with ships. The biplane was completely out of control. Its tail unit had disappeared. Its course was a blurred streak. It plowed straight into a yacht. There was a terrific crash—an explosion. Fire leaped high in the air.

The Scarlet Stormer was streaking down, its engines dead. Bill held an

iron grip on his crippled ship. It swept lower and lower. He saw the cleared channel, saw the string of red buoys the finishing line. Could he fight his ship over it?

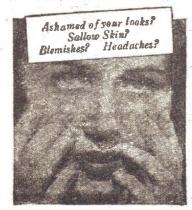
The amphibian's nose dropped; the whole structure of the plane was shaken. Bill forced it ahead—lower and lower. And then the sleek Scarlet Stormer flashed across the line—the winner.

IT WAS not until after the Canadian had streaked in for second place that Bill learned that Sam Weir was dead. The *Thunderbolt* had, ironically enough, crashed into the archeriminal's yacht. Every one aboard had been wiped out in the ensuing explosion.

Sam Weir was gone. No longer would he menace the Scarlet Stormer's sky trails. He had failed to stop Bill Barnes and his wonder-plane.

Bill had, by superhuman effort and bulldog pluck, brought the Scarlet Stormer across the finishing line first, thereby winning the hundred-thousand-dollar prize. Now, his financial worries ended, he could get his gang together again on the Long Island field. And getting Shorty out of the hands of his captors must be their first consideration.

Even then, however, bloody tentacles were reaching out from far-off Borneo to ensnare the king of pilots and his famous gang.



# STOP CONSTIPATION

# This Simple, Pleasant Way

DULL, blotchy skin, headaches, no pep—how often these are due to constipation! In many cases the real cause of constipation is insufficient vitamin B. If your case fails to respond to ordinary treatment, a shortage of this element is probably to blame. Therefore, with adequate vitamin B, elimination will become easy and regular.

Yeast Foam Tablets furnish this factor in abundance. They are pure yeast—the richest known food source of the vitamins B and G. These elements stimulate the digestive system, give tone to intestinal nerves and muscles. Then, as elimination improves, energy revives, headaches go, the skin clears! Get a bottle of Yeast Foam Tablets at your druggist's today. For a free introductory package, write your name on the margin of this advertisement, hear out and send to the Northwestern Yeast Company, Chicago.



# An Organization for the

ORWARD MARCH! Applications for membership continue to flood the office daily. North, east, south, and west, our ranks continue to swell by leaps and bounds.

The United States is showing faster progress in aviation than any other country in the world. But who will this country look to in order to fill the everincreasing vacancies in the near future? The red-blooded, young Americans of to-day. What an opportunity for you Air Adventurers!

Just to think that only a few short months ago there were only a numbered few to lend a hand when Bill Barnes' fleet landed on his way to one of his many adventures. Now there are hundreds, thousands, on their toes, ready to spring to his assistance the minute the roar of his mighty air steeds announces his intended landing.



DON'T FORGET there are still some boys in your neighborhood who haven't read the adventures of Bill Barnes. Be sure to tell them what they're missing. Tell them about the club you belong to; be sure to show them your membership certificate and the wings you wear.

Believe me, Bill Barnes was just as air-minded when he was your age, as you are now. And, boy, was he enthu-

siastic? Why he actually made models of every plane and glider he could get plans for and even the ones he saw in pictures. Besides building models he studied everything that he could lay his hands on pertaining to flying or becoming an aviator. That is why he is such a remarkable pilot to-day.

When Bill tells you something, you can bet he knows what he is talking about. Yet the opportunities for you as an Air Adventurer are many times greater than they were for him. The pioneers who have blazed the way up until to-day, have paved the way for your speedy progress.

There are many Air Adventurers who no doubt are getting ready to apply for a pilot's license. If so, you are fully aware of how important it is to read what the masters of to-day have to say regarding new developments in the airways.

When you look at the cover of Bill Barnes Magazine, you will always see some newly designed aircraft pictured there. A lot of boys cut them out and save them. Pep up the old enthusiasm and build models of them.



ENTHUSIASM! That's what counts. It was just that, that made the early pioneers in aviation accomplish



# Advancement of American Aviation

the feats that have been so important to the rapid stride of progress in the air.

All Air Adventurers are pledged to do what they can in the interest of aviation. We do want every boy who is interested to join our ranks. But not unless you are sincerely and whole-heartedly in accord with us. For we must of course be careful in selecting our members. We don't want you to join just to have a certificate and emblem to boast about and show off. Our life-membership certificate and insignia—wings—mean something.



PASS judgment on yourself; we leave it entirely to you. If you are con-

vinced that you would like to join us and abide by all the rules and regulations—then we shall be glad to greet you.

The rest is simple. Tear off the coupon at the bottom of this page, fill in your name, age, and address and mail it together with ten cents (10c) to cover postage to: Air Adventurers, 79—89 Seventh Avenue, New York City. Your name will be entered with the rest of the comradery of loyal air enthusiasts. The wings and life-membership certificate will be promptly mailed. And you will have become an active member in good standing of the Air Adventurers.

Albert J. Carlson

# (MEMBERSHIP COUPON)

I am interested in aviation and its future developments. To the best of my ability I pledge myself to support the principles and ideals of AIR ADVENTURERS and will do all in my power to further the advance of aviation.

Please enroll me as a member of AIR ADVENTURERS and send me my certificate and badge. I enclose ten cents to cover postage.

Check here if interested in model building.

Name	Age
Address	



HERE is the third point in our Creed as it has been planned. Think it over and when you have decided whether it should be the third point in our Creed, fill in the ballot blank at the bottom of this page and mail it to me. Next

month we will report the vote as usual, when we present the fourth point of the Creed to you.

FLIGHT COMMANDER.

# Albert J. Carlson

Albert J. Carlson.	INITIATIVE
Flight Commander,	I vote to adopt point three
The Air Adventurers Club,	I vote against point three
79 Seventh Ave., N. Y. C.	(Mark X only one box)
Dear Commander:	
Here is my ballot in the vote	on point three of the Creed.
S	incerely,
<i>.</i>	

# Point Three of

# The CREED of the

ISTEN, Air Adventurers! Did you like point two of our Creed? Well, I should say you did! In fact, there was even a bigger vote on point two than on point one, if early returns are any indication. Get busy and sharpen your pencil to vote on this next point.

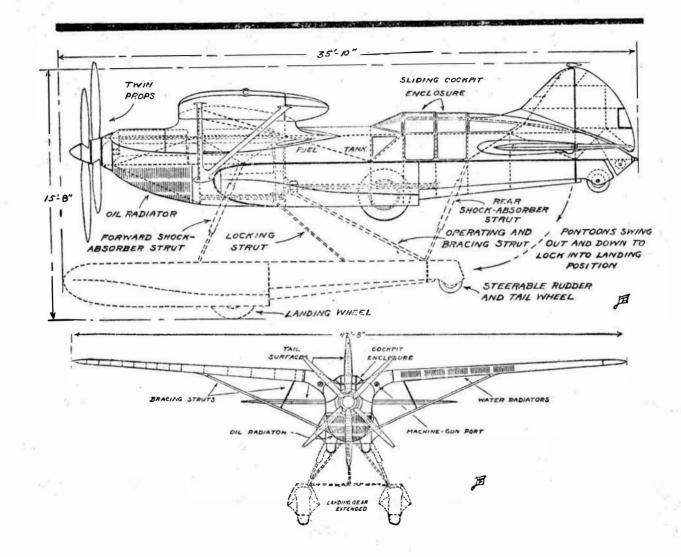
The Air Adventurer has:

## (3) INITIATIVE.

He does not follow the crowd; he leads. Whenever he sees a chance to

improve the safety of his plane or conditions around him, he does not ask or wait for some one to do it; but goes right ahead with his own ideas and makes trials or tests, not giving up until he has proved and perfected his ideas. His clear thinking makes him a leader in every worthy undertaking. He is the outstanding "ace" of aces—an Air Adventurer who has the initiative to undertake whatever he believes will prove beneficial to his fellow men as well as to himself.





# SCARLET BF 6-A STORMER

At last! The carefully guarded hangar is opened—white-clad men move inside and trundle out into the sunlight a sleek thunder-bolt of flashing red. And there she stands, her twin motors ticking over with a pur that will soon become a sky-blasting roar, her twin props spinning a circle of liquid steel—the product of Bill Barnes' genius, the mightiest speed machine ever created. It's a big day for Frank Tinsley. He's been itching to get at this ship, to catch her beauty on canvas and unfold her many stunning secrets of design. So now we'll let him introduce her—the "Scarlet Stormer," proud queen of the high blue skies.

WAS WORKING busily yester-day morning on an oil study when "Corp," the diminutive ex-jockey who serves as my house boy, showed Bill Barnes into the studio.

"What's the big paint-and-brush man doing this afternoon?" the famous ace asked with a grin.

"Well," I chuckled, "I had expected to devote it to my—ahem—art. Why do you ask?"

"Oh, nothing! I just thought you might like to get a look at the new Scarlet Stormer in action."

"What! Do you mean to tell me she's all finished?"

Bill nodded smilingly. "Of course! I gave her the last test yesterday. What do you say, Frank?"

"What do I say? I say art be damned!"

Bill chuckled, and a few minutes later

we were in the flyer's streamlined car, burning up the roads toward the Barnes Airport.

When we rolled into the hangar my jaw dropped with disappointment. There stood the Scarlet Stormer—but half her plates had been removed, and she looked like a skeleton under the white glare of the daylight lamps. A crew of trusted mechanics, under the expert direction of "Shorty" Hassfurther, were hard at work adjusting the powerful double motors.

Shorty grinned as he saw my dismay. "Don't worry, Mr. Tinsley. Just making a few last-minute adjustments. She'll be ready in half an hour."

Shorty was plainly jubilant. Evidently the Scarlet Stormer had fulfilled all their hopes for her.

Bill backed the car out of the hangar and turned it in the direction of the administration building.

"Let's look over the plans while the boys are tuning her up," he suggested.

BILL led the way past a watchful guard into his inner sanctum and, turning the dials of the great steel vault that preserved safely his most secret inventions, the world's most-famous aviator showed me a roll of precious blue prints. Together, Bill and I pinned them out on the brightly lighted drafting table, and my eyes began to trace the crisp white lines of the design.

"The Scarlet Stormer," Bill began, "I consider to be my greatest design to date. She is a type that I can describe only as a 'racer-fighter'; what the British call an 'interceptor.' She has power and speed far beyond any military plane now in existence. She is highly maneuverable, is well-armed, can descend on either land, water, or snow. The landing gear, as I explained in our interview last month, is probably the first example of a retractible type of amphibian gear that I believe will, in time to come, be widely used."

Bill paused for breath and smiled faintly. "Would you rather look over the plans and skip the lecture?"

I shook my head instantly. "I should say not! •n with the lecture!"

"O. K." Bill grinned. "You asked for it."

He picked up a pencil and continued his talk:

"Look here, for instance. There is, as you can see, a double power plant somewhat similar to that used in the Italian Schneider Cup winning Macchi. It is made up of two supercharged Barnes Diesels, set end to end. The front unit drives a hollow shaft, geared up to a position between the cylinder banks. The rear unit drives a shaft, also geared, which revolves within the front one. These shafts work against each other, turning three-bladed controllablepitch propellers in opposite directions. The perfect balance of these opposing thrusts does away with torque, which heretofore has made difficult the piloting of ultra high-speed planes.

"The motor units, being Diesels, are much simpler and sturdier than the short-lived experimental gasoline motors used in the racing Macchi. Of course, to be truthful, they are heavier, too; but in designing the Scarlet Stormer I was more interested in producing a strong dependable fighter than in obtaining the extreme speed necessary to win the Schneider Cup."

Bill's pencil moved steadily across the blue print.

"While we are on the engines, Frank, notice that the cylinder heads and exhaust collectors on each side are inside an extension of the wing fairing. The exhaust pipes are covered with asbestos and are equipped with special mufflers which cut down the engine noise considerably. Each pipe is also fitted with a flame arrester which prevents the pilot from being blinded by the exhaust fire at night—and also makes the ship less visible in the darkness.

"Just above the exhaust pipes in the guil stubs of the wings are mounted two 50-caliber machine guns. There are hinged panels in the underside of the fairings for the inspection and servicing of the guns and panels, pierced with louvers, in the upper surfaces for cooling the gun and exhaust compartments."

Bill Barnes unfolded another section of the blue print.

"Here is the cockpit arrangement, Frank. The ship is designed as a single-seater, but past experience has shown the necessity of sometimes picking up a passenger. So I have incorporated a small folding seat behind the pilot's compartment. The cockpit space is entirely covered by an inclosure of shatterproof glass which extends to the rear on either side of the fin and provides excellent visibility.

"The section immediately over the pilot's seat slides back for ingress and egress and also permits open cockpit flying. The inclosure covering the extra seat may be slid beneath the forward section to enable the passenger to bail out in an emergency. Then, sliding them both to the rear permits the pilot to step off in turn. Am I explaining all this clearly to you, Frank?"

"O. K., Bill. I'm miles ahead of you. Go on!"

"The instrument board is provided with a double set of the latest gadgets, including a full set of blind-flying instruments. The wireless apparatus consists of a sending and receiving set, similar to that used in other ships of my fleet. It is installed in the tail section, with remote controls on the dash. In the rear of the cabin will be carried the usual emergency and camping equipment that is the rule on all the Barnes planes."

Bill Barnes turned again to the larger of the blue prints.

"The framework of the fuselage is, as you can readily see, Frank, con-

structed of chrome-molybdenum steel tubing in various weights. All joints are welded and bonded to reduce wireless interference. The pontoon gear is similar to that used in the Snorters. What would be a sharp keel on the ordinary sea-plane float has been flattened out and becomes instead a ski surface for landings on snow or ice. This ski keel extends halfway or more down the length of the pontoon and contains at its rear end a well, in which the wheel gear is housed.

"At the extreme end of the float is a second and smaller wheel inclosed in a steerable water-rudder. The plane, therefore, makes a four- instead of a three-point landing on the runway. The entire pontoon is supported by two collapsible struts, containing hydraulic shock absorbers and operated by a bracing member traveling on a worm gear. When completely retracted, the floats fit into recesses in the underside of the fuselage, leaving only the streamlined bottoms of the pontoons visible."

BILL sighed and laid aside the fuselage sheet. "Got enough facts and figures, Frank?" He grinned.

"You can't tell me too many for our readers, Bill," I rejoined. "Detailed facts about this marvelous ship are exactly what the readers of the magazine want. For instance, what about the wing arrangement? I'm not going to let you hold out on a single detail."

Bill Barnes pretended to groan, but I could see the light of enthusiasm in his keen blue eyes. Bill gets a tremendous kick out of the technical interest and knowledge displayed by a large number of the readers of this magazine.

"All right, Frank!" He nodded. "Now for the wings. I originally planned two separate wing arrangements for testing. One was the centerwing type that you see on this sheet. It springs from the fuselage directly above the pontoon well and is wire-braced, top

and bottom. The other arrangement is the gull-wing type, that was finally adopted.

"The gull wings spring on streamlined stubs from the upper quarters of the fuselage and are braced by diagonal V struts from below. Being set at about eye-level, the pilot can, by ducking his head, look above or below the wings to either side. Directly to the front and above, the view is entirely unobstructed. Do you see? This arrangement results in the smallest possible angle of blindness both in fighting and landing, and vastly improves the visibility of the pilot."

"A damn swell layout!" I agreed.

Bill looked at me earnestly. "So much for theory, Frank. Now let's get down to construction." He pulled the plan closer.

"The wing itself is all metal and is built in two sections. The inner section contains five separate radiators which are slung between the spars and extend around the leading edge. Each of the radiator units can be operated independently. I incorporated this cooling system into the plane to prevent undue loss of water in the event of one or more of the units being shot full of holes in an aërial fight.

"The hot-water lines coming from the motors are conducted along the whole length of the leading edge, around the wing tip, and back along the after spar to the radiators. This heating materially prevents the forming of ice on the wings during high altitude or winter flights. Clever, eh?"

"You said it," I agreed.

"The outer section," Bill continued, "is of standard construction, with steel spars cross-braced with tie-rods, dural ribs, and a superlight alloy covering. The rear portion of this outer section of the wing forms the aileron. The underside of the trailing edge of the inner-wing section operates as an air-brake flap. The wings are of the high-

lift type to compensate for their relatively high loading and small area."

Bill Barnes' hawklike blond head lifted suddenly.

"Uh, uh! I hear the boys warming her up now! Let's go!"

A MOMENT later, Bill and I were striding up the concrete apron toward a scarlet airplane that, even in the shadow of the hangar, looked like a sinewy redbird, eagerly poised to storm at the sun itself.

No doubt you readers know the old saying among flyers—that if a plane *is* right, it *looks* right.

The Scarlet Stormer certainly looked right.

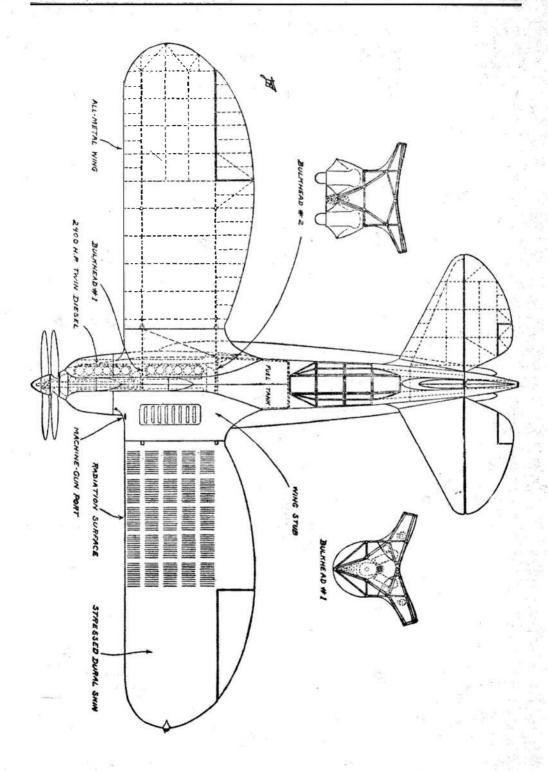
From the glittering circle of pale light formed by the blur of the idling propellers, to the taut tail surfaces, this trim bird of war was a dream come true of efficiency and beauty. It was finished in gleaming scarlet lacquer, with fairings and trim set off in a rich cream color that contrasted perfectly with the red.

The sheen of sunlight on the streamlined ship made me groan faintly for brushes and color tubes and palette so that I could put forever on canvas the slim strength and grace of the *Scarlet Stormer*. The ship was alive. I almost expected to see it breathe.

A waiting mechanic slid the cockpit inclosure forward and opened the half door that made it easy for a man of my bulk to climb into the rear of the tiny cabin. As I strapped myself into the folding seat, the inclosure slid back over my head, and Bill Barnes swung into the pilot's seat in front.

He pointed to a tiny locker, and I fished out a helmet, buckled it on, plugged the dangling wires into the jack marked "Radio." Bill threw the switch that converted the radio system into an intercockpit telephone and explained some of the gadgets to me.

"That wheel crank," Bill said, "is the manual control for winding up the land-



ing gear. Normally the worm shaft is engine-driven, but, for emergencies, the apparatus is provided with the hand crank in addition. The smaller crank, higher up, controls the wing flaps."

On either side of the cockpit were the extension-charging handles of the twin, 50-caliber machine guns; and right below them peeped the circular dials of the automatic ammunition counters. Bill indicated swiftly to me landing flares, bomb releases, seat-type parachutes, racks for pistol, rifle, submachine gun, and ammunition, and, lastly, the oxygen system that provided the sealed cabin with breathable air at high altitudes.

Bill Barnes threw off the wheel brakes and jazzed the twin motors. The Scarlet Stormer swung lightly around and rolled down the concrete runway. At the far end, another touch of Bill's foot turned the ship into the wind and the engines blasted.

As we leaped forward under the tremendous drag of 2,400 horses, I saw the flaps come down. Almost instantly the added lift took effect and the *Scarlet Stormer* was in the air. Bill circled lazily about the airport to give me the feel of the ship. Then he swung southward.

Almost instantly I could see dazzling white sand—Fire Island stretching away for miles of lonely isolation. Abruptly, the *Scarlet Stormer* dropped and began skimming the waves in a course paralleling the beach.

Our speed increased. The flaps were up now and our landing gear had disappeared. My eye stared incredulously at the moving needle of the air-speed indicator. Two hundred miles per hour, two-fifty, three hundred! And still the needle was climbing!

A glance out of the window took my breath away. At this low altitude the creamy green of the surf boiled below like an insane mill race. The sense of speed was so tremendous that it seemed to twist my insides into knots. The end of Long Island whistled into sight—Montauk Point!

Suddenly the tanned fingers of Bill Barnes tightened on the control and drew back. The horizon dropped away. The Scarlet Stormer roared skyward. By the time my wide eyes located the altimeter we were past ten thousand feet. A few minutes more and it was twenty—twenty-five! We began to slow down a little in that mad climb, and Bill busied himself with the flap crank and propeller-pitch controls.

Again our rate of climb picked up. The air in the cabin was getting thinner, harder to breathe. I switched on the oxygen tanks. The altimeter was over thirty thousand feet when at last we straightened out.

FAR BELOW US, Long Island had dwindled to a tiny strip and the whole coast line looked like a vast relief map. Then the *Scarlet Stormer* whizzed into a layer of clouds—the cirrus clouds of high altitude. The wash of the powerful props whipped a tunnel through the gray fog, and in a moment I saw blue sky again—above the clouds.

Presently Bill throttled the pulsing motors down a bit, explaining to me through the phone that maneuvering at such a high speed was impossible. I nodded. I knew, of course, what he meant. Quick turns in racing planes tend to siphon the blood away from the brain, resulting in a form of temporary blindness that speed pilots call "blacking out." But even throttled down, the speed of the Scarlet Stormer was almost too much for my stomach. We looped and spun at such a dizzy speed that I wasn't sure whether I was on my head or the seat of my pants. At last Bill tired of the sport and we descended.

As we approached the ground I revived enough to watch the workings of the retractible landing gear. As soon as the motor was throttled below a cer-

tain point, a red light bloomed on the dashboard and a warning buzz echoed in the earphones. Immediately, the wing flaps opened and the landing gear began to unfold. A click sounded and the red light was extinguished. The pontoons were now locked rigidly into place for the landing.

The concrete of the runway swooped up toward us and the *Scarlet Stormer* touched earth with scarcely a jar. We taxied to the apron and Bill swung the ship expertly around.

My stomach still felt slightly like gela-

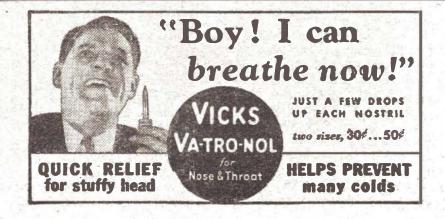
tine. I was glad to follow Bill Barnes into his study on slightly unsteady legs. Whoosh! What a ride he had taken me for!

I finished studying the blue prints, and with Bill Barnes! O. K. on my sketches, I stumbled into his car for the long ride back to town. My mind was still enthralled by the scarlet beauty of the gorgeous ship. I could hardly wait to yank out a canvas and paint the smooth beauty of the Scarlet Stormer.

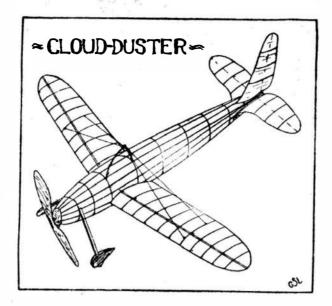
The painting's on this month's cover, as you know. Think I did a good job?

#### CONTEST ANNOUNCEMENT

In next month's issue, the national ratings of the winners in the Bill Barnes Model Plane Contest will be announced. A special section of the magazine will contain photographs of the fleet of prize-winning planes, of the judges, and of the methods they used to determine the outstanding models. The medals and awards will be presented shortly after the appearance of the magazine.



The
sixth
of
the
series



by Gordon S. Light

# The Cloud-Duster

WIFT as a bullet, graceful as a dove, rugged as the rock of Gibraltar—that's the description that fits the "Cloud-Duster." Well, maybe I have exaggerated just a trifle, but after you've flown the "Duster" you'll understand my enthusiasm.

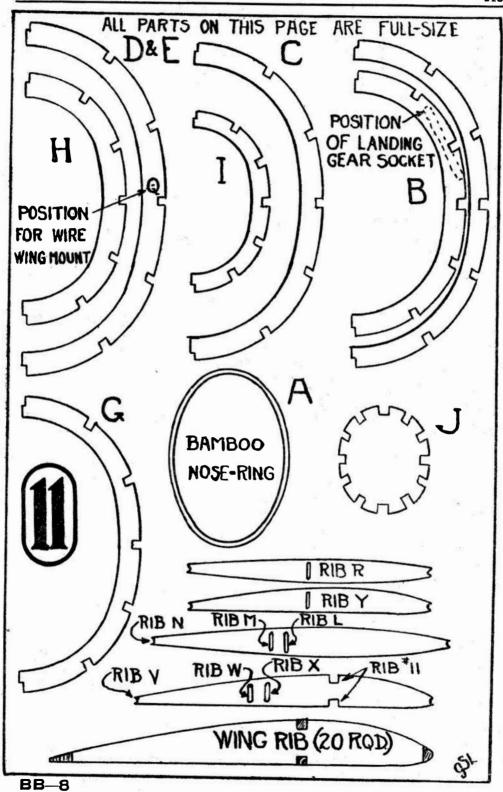
Its fast, high climb inspired the name "Cloud-Duster." Don't be surprised if your model is covered with "cobwebs" when it lands after a high flight among the clouds! The bulletlike body and the position of the wing give the model an exceptional climb with little tendency toward stalling. Since the wing is placed at the center of the fuselage in line with the rubber motor, this type of model is classed as a Mid-wing.

The building of the Duster is just a trifle more difficult than any other model we've built. The fuselage construction is a new type. All sharp corners have been rounded, and the fishlike body slips through the air with little resistance. The wing of the Duster is built in two pieces. Thread braces hold it in posi-

tion. A single-strut landing gear with pant-covered wheels completes the streamlining of this model.

Here's the complete list of materials. Check off those supplies that you have in your workshop and while you go to the model shop for the others, I'll arrange the tools and sharpen your trusty—or maybe it's rusty—carving knife.

12 fuselage longerons 3-32 sq. x 24". 5-16" flat balsa for wheel pants. 1-16" sheet balsa for ribs and pants. Propeller block 1 3-8  $\times$  1 1-2  $\times$  14". Motor stick 3-8 x 3-8 x 19" 4 wing spars 3-32 x 3-32 x 18" 2 leading edges 3-32 x 3-16 x 18". 2 trailing edges 3-32  $\times$  1-4  $\times$  18". 1 small piece of 1-8" flat balsa for end ribs. Several feet of No. 14 piano wire. Several inches of sheet aluminum-part of an old aluminum kettle will be all right. I ounce of cement, 2 ounces of banana oil, 1 ounce of "dope." 1 strip of bamboo (15 inches). About 6 feet of 1-16" diameter reed. 23 feet of 1-8 flat rubber motor. Pins, one clothing snap, thread. One sheet of orange and one sheet of black tissue. **BB-7** 



# MAKING THE FUSELAGE FORMERS

Only half of each oval-shaped fuselage former is shown in drawing 11. Trace the formers on cardboard, turning over the given half to complete the cardboard former. Label each former. DO NOT CUT AWAY THE CEN-TER PORTION OF THE CARD-BOARD FORMERS. However, be sure to cut 12 notches for the fuselage longerons. The cardboard formers are used as patterns when cutting the others from 1-16 balsa. First cut out one with the grain running lengthwise and then another one with the grain running crosswise. Cut away the centers of these two formers and cement them together. Press with a heavy iron while the cement is drying. Then with a file and sharp knife cut the notches for the longerons.

All the formers are made this way except "A" and "J." Former "A" is a nosing bent from 1-32 x 1-8 bamboo. To bend bamboo wrap it around a heated section of cylindrical metal, preferably about an inch in diameter. A hot soldering iron will serve excellently. Former "J" is cut from 1-16 balsa, but is only one thickness and the center is not cut away since the motor stick doesn't extend back that far.

#### ASSEMBLING THE FUSELAGE

After you've cut and cemented together all the formers, assemble the fuselage. Mark 10 2 1-4" spaces on the twelve 3-32 square fuselage longerons. Beginning at the center, cement the longerons to the formers at the points you've marked. Drawing 1 will show you the position of the various formers. Cement all the formers in place, checking to see that the fuselage is in true shape. Join the rear ends of the longerons with cement. Cement the bamboo nose ring to the front ends of the longerons.

#### MOTOR STICK

Just inside the bamboo nosing, cement a wire motor stick clip. This clip is bent from No. 14 piano wire and should fit the 3-8 x 3-8 x 19" motor stick. Another wire motor stick clip is cemented inside the fuselage at former "H." These clips should hold the stick in the bottom part of the fuselage so that the rubber motor will be directly in the center of the fuselage.

Cut a nosing from a block of balsa to fit former "A." This nosing should be rounded to complete the streamlined shape of the fuselage. Cut a notch in the bottom of the nosing and cement it to the motor stick. Have the motor stick in place inside the fuselage when you perform this operation to guarantee getting the nosing to fit snugly against former "A." Cement a wire spur to the bottom of the stick to fit under the rear clip to keep the motor stick in place.

Drawing 7 shows the shape of this spur. A rear hook bent from No. 14 wire is secured to the rear of the stick with cement and thread. The front propeller bearing is a punched clothing snap. Cement it to the balsa nosing about 1-2 inch above the top of the motor stick.

#### LANDING GEAR

The wheel pants are made in the usual way. Drawing 9 illustrates the steps. First cut two formers from 5-16 balsa. The shape of the pants can be sketched by drawing parallel lines 1-2 inch apart, then sketching in the curve, keeping step 1 of figure 9 as your guide. Cover both sides with 1-16 sheet balsa and carve to a streamlined shape.

The balsa wheels are 1" in diameter and 1-8" thick. An ordinary pin serves as a wheel axle. The landing struts are bamboo 1-16 x 3-16 x 7 1-4", sanded to an oval shape. These struts fit into aluminum sockets. These sockets are easily made by wrapping sheet alumi-

num around the end of the strut, then fastening it to the position marked on former "B."

The struts should fit the sockets easily enough to permit removal without straining the fuselage. Point the ends of the struts and insert into the tops of the pants. The wheels should be about 9 inches apart. The tail skid, bent from 1-32 square bamboo, should hold the rear of the model about 2" above the ground.

#### WING

The method of wing construction is similar to that of most of our other models. Cut 18 ribs from 1-16 balsa and 2 ribs from 1-8 balsa. The full-size pattern is given in drawing 11. Drawing 4 shows the details of wing construction. At the tip of the wing you'll notice rib No. 11 is smaller than the others. Look again at drawing 11 and you'll find rib No. 11. Cut two ribs this size, being sure to cut the notches for the spars.

The wing spars are 3-32 x 3-32. The leading edge is half-rounded balsa 3-32 x 3-16. The trailing edge is triangular, cut from balsa 3-32 x 1-4. The end rib of the wing is 1-8" flat balsa. One half inch from the leading edge, cement a piece of 1-4 square balsa between rib No. 1 and No. 2. Another piece is cemented 21-4" back of the first piece. Drawing 4 will clear this up. These pieces of balsa are used in fastening the wing to the fuselage.

The wing tips are of 1-16" in diameter. You'll find that reed is easy to bend. One way is to soak it in hot water and then pin it in shape while it dries. Cement four small wire screw eyes to the top and bottom of rib 7 for attaching the thread braces.

The above directions apply equally to both wings. BE SURE YOU MAKE ONE RIGHT- AND ONE LEFT-HAND WING. Check on this, so that when you're finished you'll not

find that you have two wings for the one side.

#### RUDDER AND ELEVATOR

The outline of the rudder and elevator is shown in drawing 3. First make a full-size drawing. Draw parallel lines one inch apart. Using drawing 3 as a guide, sketch in the full-size pattern. The rudder is exactly 1-2 the elevator. Consulting drawing 11, you'll find the rib patterns for the elevator and rudder. The elevator has been cut away at the center to fit the rear of the fuselage. Drawing 2 shows this.

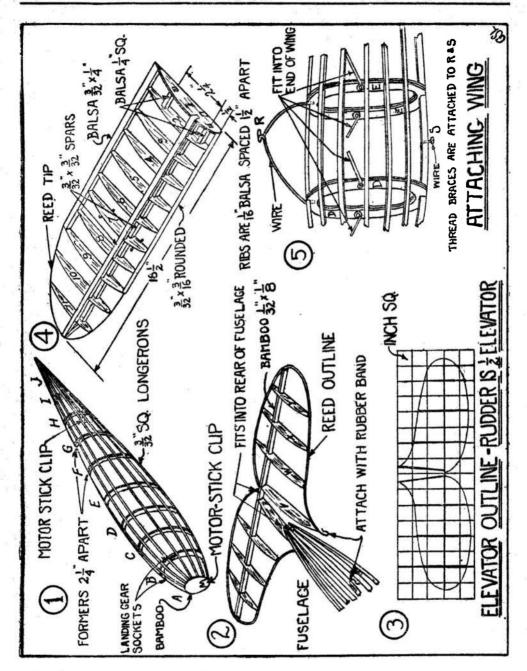
The main spar of the elevator is bamboo 1-16 x 1-8 x 15". Ribs V, W, and X are the same except that the hole for the spar varies. Likewise the rudder ribs—drawing 6—N, M, and L are identical in shape, but also have the spar holes at different locations. The outline of both elevator and rudder is 1-16 reed. Soak three pieces of reed in hot water, then pin to the full-size drawing, and, when they are dry, cement to the elevator and rudder.

# MOUNTING THE ELEVATOR AND RUDDER

Cut a notch in the rear of the fuselage just large enough to accommodate the bamboo elevator spar. Cement two small wire hooks to the fronts of the two "V" ribs. 31-4 inches from the rear of the fuselage, cement two small wire hooks to each side of the body. Drawing 2 will clear up this procedure.

The spar of the elevator fits into the notch at the rear of the fuselage. Rubber bands attached to the hooks on the fuselage and elevator keep the elevator in place. This method of mounting the elevator, together with the demountable landing gear and wing, make it possible to pack the model in a small box.

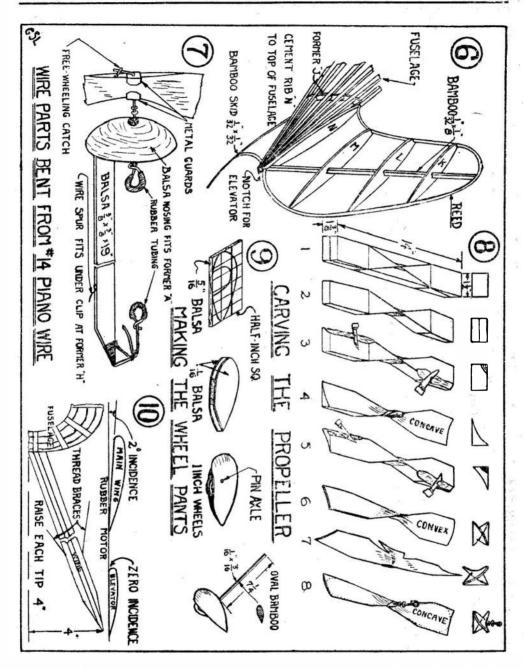
The rudder is cemented directly to the top of the fuselage. Give the joint a liberal coating of cement and while it's drying we'll carve the propeller.



#### CARVING THE PROPELLER

The size of the block is 1 3-8 x 1 1-2 x 14". Drawing No. 8 shows the 8 important steps. First, of course, mark off the block with pencil and ruler. Then cut out the blank as step 2 indicates. Step 3 shows the way to cut the

blade angles. With your knife and sandpaper, concave one side of the blades as in step 4. Concave means hollowed out, while convex is just the opposite. The side of a watch glass facing you is convex, while the side facing the watch is concave.



In step 5 turn the block over and cut away the other side of the blades. Looking at the propeller from this side the blades are slightly convex. Step 6 shows the rough-carved propeller.

Since the center and the tips of the propeller do not help pull the model

forward, we round the tips and cut away part of the center of the propeller. That is step 7. Cut away at least half the thickness at the center.

The hub of the propeller is protected against wear by two metal guards. Drawing 7. Punch a hole in a strip of

tin from an ordinary tin can and cut out the guards. When cementing these to the propeller, make sure they are in line with the center hole. A free-wheeling propeller is one that revolves freely with the air after the power is gone. Drawing 7 shows the free-wheeling device.

A small piece of wire is cemented 1-4" from the center of the propeller at an angle so that the shaft will slip under the wire as long as the rubber is unwinding, but as soon as the propeller spins faster than the rubber, the end of the shaft will slip over the free-wheeling catch.

If you have the September issue of Bill Barnes, look for the more detailed drawings of this free-wheeling device. It isn't difficult to make; just make sure the free-wheeling catch is cemented firmly to the propeller.

Bend a shaft from No. 14 piano wire. Insert it through the nosing, add several washers, slip on the propeller and then bend the end of the shaft at right angles. Rubber tubing is slipped on the other end of the shaft and on the "S" hook.

This tubing is insulation from heavy electric wire and can be easily slipped off. Make it a point to use rubber tubing on all your fittings to prevent the wire from cutting the tightly wound rubber motor.

#### MOUNTING THE WING

Much of the success of your model will depend upon how carefully you check the wing setting. Drawing 5 shows how the wire wing-mounts are fastened to the formers. On formers "D" and "E" the position is marked by the letter "Q." These wire pieces fit into the 1-4 inch square balsa pieces at the ends of the wings. Drawing 10 shows the angle of the wing setting.

The front of the wing should be about 1-8 inch higher than the rear edge of the wing, using the rubber motor as

the basis for this measurement. Punch holes for the wires in the ends of the wing and then coat the edges of the hole with cement to prevent wear. If you mount the wing and then find that the setting is incorrect, you can change it by punching another hole in the end of the wing, higher or lower as the case may be.

Drawing 5 shows the wire brace, marked "R," mounted on top of the fuselage. This brace is for fastening the thread wing braces. It is 11-2" high and is fastened to the formers "D" and "E." Cement a small hook to the bottom of the fuselage half-way between formers "D" and "E." In drawing 5 this hook is labeled "S."

Slip the wings on the wire wing mounts. Run thread braces from the screw eyes at rib No. 7 to the wire braces on top of the body. Also from the fittings on the bottom of rib No. 7 to the hook at the bottom of the fuse-lage. As shown in drawing 10, the thread braces should be tight enough to raise the tips of the wing 4 inches higher than the center.

#### COVER THE MODEL

The colors of my Duster were black fuselage and orange wings, elevator and rudder. The body is easy to cover if you cut strips of tissue about 21-4 inches wide, just enough to cover the sections between the formers. Have the grain of the tissue running lengthwise.

When covering the wing, be sure to attach the paper to the top and bottom of rib No. 7 so it will help take up the strain of the thread braces. Have the grain of the tissue running lengthwise on the wing, elevator and rudder. Spray the tissue with water and then give the entire model a coat of "dope."

Prepared dope is sold by most modelairplane companies. If you can't buy dope, make it by mixing three parts of acetone with two parts of banana oil. Acetone can be purchased at any drug store.

# BALANCING AND FLYING THE MODEL

Loop a 12-strand motor of 1-8 flat rubber around the shaft and attach it to the rear hook with an "S"-shaped wire hook. Allow several inches of slack in the motor. Put the elevator in place, insert the landing gear struts into the aluminum sockets. Balance the model on your finger tips. The model should balance when your finger tips are under the wing, about 1-3 back from the leading edge.

On the original Duster model it was necessary to add weight to the nose and the wheels. Don't hesitate to add a small chunk of lead to the wheel pants, if necessary. Flatten it and you'll be able to slip it inside the wheel pants. The bamboo struts, pants, and wheels together with the added lead on my model weighed .30 ounces. But don't add too much lead if your "crate" refuses to balance. You probably made your elevator and rudder too heavy. If this is the case, cut an inch or so off the rear of the motor stick to secure balance.

#### FLYING

Glide the model. When the glide is flat, wind the rubber a few turns and try a short flight. Under full power the model should take off in a tight, left-climbing spiral. If your model refuses to circle to the left, warp the rudder a trifle. If you do this, however, BE SURE TO GIVE THE LEFT WING WASH-IN. That is, warp up the front tip of the left wing.

As we learned last month, the best model flight is that which circles to the left when the rubber is tightly wound, gradually circling less and less until it is finally flying straight. When the power is gone, the plane glides in right circles. By all means lubricate your rubber with glycerin or some prepared model lubricant. It will add many seconds to your flight.

Suppose the model balances at one third the wing chord and still insists upon stalling. In this case raise the front of the elevator a trifle. You can regulate this setting by slipping balsa blocks through the fuselage at the front of the elevator. Since the wing of the Duster is fixed, you'll have to adjust your model with the elevator or with small pieces of lead.

Don't imagine your model is hopeless if it pitches up into whip stalls and then dives or performs some other crazy antic. The trouble is probably your elevator setting. It takes only a slight movement of the elevator to change the entire flight of the model.

So long, modelers, good luck and happy modeling days! Keep the old propeller turning and remember that as you add seconds to your model flights you are acquiring training that will be invaluable later when you take up flying. I hope to be seeing you in the very near future to resume our model flying.

#### ADDITIONAL "DUSTER" DATA

Wing	.45	ounces
Fuselage, elevator, rudder		"
Wheels, pants, and struts		u
Motor stick, propeller, 12		**
strand rubber motor		"
m . 1	200	

Total, ready-to-fly ..... 2.66 ounces

Total wing area—130 square inches. Wing loading one ounce per fifty square inches wing area.

Rubber length—23 inches.

Total turns about 1,000.

Average flight-1 minute and 45 seconds.



# "J U M P!"

#### An article about the Irvin Air Chute

HE IRVIN AIR CHUTE has been developed and perfected to fill the urgent need for a reliable and practical life-saving means for use from disabled aircraft. It is the tesult of several years of research and test by both the Engineering Division, United States Air Service, and the Engineering Staff of the Irving Air Chute Co.

The need for such equipment was first seriously felt during the latter part of the World War and was considered of such importance by the United States Air Service that a Board of Æronautical Engineers was appointed to study all existing types of parachutes. After thorough investigation and exhaustive tests this board selected and developed the type most suited to their needs.

At that time all types were tested to destruction to bring out their weak points. The tests were conducted in conditions such as might arise in actual service emergencies in order to determine definitely what were the chief points to be considered in parachute equipment. These were found to be as follows:

1—It must be possible for the aviator to leave the aircraft regardless of the position it might be in when disabled.

2—The operating means must not depend on the aviator's falling from the aircraft.

3—The parachute equipment must be fastened to the body of the aviator at all times while in the aircraft.

4—The operating means must not be complicated or liable to foul and must not be susceptible to damage through any ordinary service conditions.

5—The parachute must be of such size and so disposed as to give maximum comfort to the wearer and permit him to leave the aircraft with the least difficulty or delay.

6—The parachute must open promptly and must be capable of withstanding the shock incurred by a 200-pound load falling at a speed of 300 miles per hour.

7—It must be steerable to a reasonable degree.

8—The harness must be comfortable and very strong and designed so as to transfer the shock of opening in such a manner as to prevent physical injury to the aviator. It must also be sufficiently adjustable to fit the largest and smallest person.

9—The harness must be so designed that it will prevent the aviator from falling out when the parachute opens, regardless of his position in the air, and at the same time it must be possible to remove the harness when landing in the water or in a high wind.

10—The strength "follow through" must be uniform from the harness to the top of the parachute, bearing in mind the old axiom—"No chain is stronger than its weakest link."

11—The parachute must be so designed that it is easily repacked with little time and labor.

THE IRVIN air-chute type passed all of these tests and was adopted as standard equipment for the United States air service early in 1919.

It is a "Free Type," "Manually Operated" parachute. It being termed "Free Type" because it is carried com-

plete in one unit, strapped to the person of the aviator. It has no attachments whatever to the aircraft and operates entirely independent of the aircraft.

In emergency it is only necessary to jump or drop from the plane at any point that is most convenient and the easiest. No avenue of escape is cut off as is the case where parachutes are attached to some part of the aircraft, or where their means of operation depend on some mechanical attachment to the aircraft.

It is termed "Manually Operated" because the aviator operates the air chute at will by a slight pull on the "pull ring" which is located in a readily accessible place on the harness.

With this method of operation the aviator can open his chute immediately after he leaves the aircraft, or if he so desires, or conditions require it, he can make a long "free drop" away from burning wreckage or any enemy plane before opening his chute, the design and construction of the harness preventing any bodily injury from the opening shock.

To meet various requirements, this type of parachute is made in three sizes as follows: 24 feet in diameter, for general service use. 28 feet, for exhibition and training jumps; and 22 feet, to be used in conjunction with the 28-foot chute for exhibition and training jumps.

The 24-foot air chute is the standard for general service use, due to its moderate rate of descent combined with its small and compact size.

It is known as the "Service Parachute" and is packed in four types of containers, namely the "Seat Pack," "Straight Back Pack," "Form-Fitting Back Pack," and "Quick Connector Pack."

The "Seat Pack" is used as a cushion, thus removing all weight and bulk from the person of the aviator. This is the type in most general use for pilots.

The "Straight Back Pack" has been designed for use in balloons, airships, and other types of lighter-than-air craft, also certain types of heavier-than-air craft. This type, as its name implies, is carried on the back and permits complete freedom of movement for walking or climbing about in the rigging of an airship.

The "Form-Fitting Back Pack" has been developed for use in aircraft, the construction of which does not permit the comfortable or convenient use of "seat" or ordinary "back pack" parachutes.

The pack frame is constructed from a special resilient spring steel wire, ingeniously formed so that the pack fits the contour of the wearer's back. The air chute is folded over a greater area, reducing the bulk and thickness to a minimum, thereby permitting a more ready and easy escape from cramped quarters in emergency. It clings closely to the wearer's back and has no projecting corners or parts to catch on the aircraft when climbing from a small cockpit or through a small cabin door.

It is also especially adapted for use in cabin planes. It can be incorporated into the back of the airplane chair and made to fit in with the upholstery scheme of the cabin. When thus used, the pack remains at all times in the chair, the harness being conveniently arranged in such a manner that pilot or passenger, upon entering the cabin, merely seat themselves and thrust their arms into the harness and fasten it about the body. It operates in the usual simple way; by a jerk on the rip cord.

The "Quick-Connector Pack" has been developed and perfected to provide a safe and reliable means for passengers and pilots in certain kinds of aircraft, the construction of which does not permit the wearing of a parachute while in flight.

WITH this equipment, only a harness is worn while in flight. The pack is carried separately within easy access. In emergency it is only necessary to place the pack against the chest, where it is attached to the harness by a connecting device that attaches it at two points.

The fabric used in the air-chute body is a high-grade silk to withstand the severe strain likely to be encountered in

service emergencies.

The suspension or shroud lines are silk cords of 500 pounds tensile strength. These cords are continuous from their point of attachment on one side of the harness to the other, passing through and over the top of the air chute. Their entire length is free from knots and splices.

Ventage is taken care of by the weave of the silk fabric in conjunction with a vent incorporated in the apex of the chute.

A SMALL miniature parachute approximately 36 inches in diameter, termed the "Pilot Chute," is constructed

with steel ribs and a spring. This is attached to the peak of the air chute by means of a separate silk cord. When the container is opened the pilot chute springs out, catches the air and holds the air chute out into the line of flight.

A "Quick-Release" harness has been developed for those who may be forced into an emergency landing in water or other unusual situations which would necessitate instant removal of the complete parachute and harness.

To release himself, the aviator turns the release fitting 90 degrees, which unlocks the harness strap. Pressure on the fitting then releases all the straps. Accidental release is impossible as the aviator must deliberately unlock the release-fitting before it becomes operative.

The harness material is a specially woven linen webbing having a tensile strength of 3,000 pounds and is reënforced on all metal parts.

A 24-foot air chute, complete with harness, weighs approximately eighteen pounds; the average rate of descent being 12 feet per second.



# DO YOU KNOW THAT-

The first successful radio communication was established on October 16, 1910?

	The first	successfully demonstrated	parachute	was	built	in	1505,	by	Leonardo
da	Vinci?	-	•				,		

The airlines in the United States do more flying than those of all other nations combined?

The first paid exhibition flights were made in 1909, by Hugh A. Robinson and Glenn H. Curtiss, at the St. Louis Centennial Exposition?

The first attempt to fly the Atlantic was made in 1910, by Wellman, in a nonrigid dirigible?

During the first ten months of 1933, there was an average of fifteen hundred and fifty people carried on the airlines in the United States every twenty-four hours?

In 1862, President Abraham Lincoln set aside an appropriation of twenty thousand dollars to provide for six observation balloons and sufficient personnel to man them, both for ascent and for ground care?

Over seven billion dollars' worth of interest-bearing banking and commercial documents were flown by airmail into New York during 1933?

The first aërial battle took place during the Franco-Prussian war, when Felix Nadar, French balloonist, was victorious over a German balloon?

In 1774, George Washington was the first American to predict transatlantic air flight?

A sheep, rooster, and duck were the first living creatures, besides birds, to fly. when they ascended in 1783 in a balloon?

Napoleon, at the battle of Fleuris in 1794, was the first to adopt balloons for military observation of the enemy lines?



# SKY WRITING



## Good Comment

Mac Duncan, North Carolina:

This is my first letter to Bill Barnes. The Vanishing Dirigible was certainly a very interesting story. Frank Tinsley gives us fine specifications and his covers are good. Also, I like Gordon Light's flying-model articles.

Bill and his gang are real pilots, but what's happened to Red, Cy, Bev and the others? We haven't heard about them in a long time

them in a long time.

Please keep the short stories, and how about the plans for the *Eaglet?* I can hardly wait to see Bill's new ship. I bet it will be a peach.

I am enclosing a drawing of a Howard Ike. What do you think of it?

I would like to see a page on the lives of famous fliers. It certainly was too bad about Wedell. Still, the violent deaths of Wedell and Davis don't discourage me. It gives me a thrill just to think of their courage and daring and makes me want to work hard to make a viation safe, so such tragedies will not be repeated.



## Froze!

Tex Darrow, New York:

I think your magazine is great. Just as fast as it comes out, I read it.

Last night, after I had finished The Vanishing Dirigible, I dreamed that I was up with Bill and I nearly froze in my sleep.

I have built thirteen models from plans and two planes from my own

plans.



# We Appeal!

Edyth C. Sheridan, Massachusetts:

I am a girl of sixteen and very much interested in aviation. Bill Barnes Magazine was among a number that I received from a friend, and it has proved to be a great treasure. I decided right away that I would be a steady reader and a member of your forces. I hope you will accept the following suggestion. Every one is interested in contests, but not every one can take part. However, all members have an interest in their club. Therefore I think it would be a good idea after you have had all parts of your slogan voted on, if you made it up in an attractive folder and sent it to members on receipt of ten cents to cover postage and cost. In this way every member would have a nice booklet that could be shown to his friends. Why not appeal directly to the girls for letters so that it will be known we have some girl members?

#### Enrolled!

Herbert E. Todd, Jr., Ohio:

I bought my first copy of Bill Barnes, Air Adventurer, last night. I haven't read it all yet, but I am quite satisfied it takes first place among the air magazines. I am greatly interested in aviation and its development, have built several solid models, and am going to start building some flying models. Hope you will enroll me in Air Adventurers.



## See This Issue

Sam Shapiro, Canada:

I think your magazine is great. I am fifteen years of age and would like to be a member of Air Adventurers. I have had a little experience in building model planes, and when I think any of them are good enough for your contest, I will send them in. Please send me the plans of Bill Barnes' plane.



## Yes Sir

Richard H. Fiedler, Ohio:

I have just read the latest issue of your magazine, and I think it is better than ever because it is different. Of all the airplane magazines on the market, yours is the only one I read, because the stories are laid in different localities and are motivated by different circumstances. Please give me the honor of becoming a member of your club.



## Student

John William Cobida, Ohio:

Just received my Air Adventurers pin and certificate, and I can truthfully say I am proud to be a member. I am not a builder of model airplanes, but a student of aviation, and will do anything I can for the advancement of aviation. I have read only two issues of Bill Barnes Magazine, and never before have I read anything so thrilling and interesting. Here's hoping our club goes over big with everybody.



# What Do You Think, Gang?

L. Buddy Kennedy, Montreal, Canada: It is some time since I wrote you, and now I want to enlist as a member of Air Adventurers. Your magazine sure is a pippin. As I was looking at some of the plans of airplanes and such, I wonder if I could make a suggestion. You publish data of different models of popular and modern planes, but if you eliminated this and published lessons on the running and care of an airplane, don't you think if would be more helpful to the advancement of aviation? Please don't take this as a criticism. I like model making, but studies keep me from continuing the work I started in the past year. But it would take more than a war to keep me from reading Bill Barnes. I wish every success and prosperity to Bill Barnes Magazine and greater advancement to aviation.



## Helmets Beware!

Edward Weber, Ohio:

Please permit another Bill Barnes enthusiast to voice his approval of your magazine. It certainly is fine. Keep your flying speed. I am taking a course in aeronautics at an automobile trade school, and later on I hope to take a transport pilot's course at Parks Air College. I certainly am proud of my badge and certificate. If I'm not working in the aviation industry by 1940 I'll eat any one's helmet, just so that he is a member of Air Adventurers.



# You're Eligible

Margaret York, Ladner, Canada:

I think your Bill Barnes Magazine is swell. I have read my second issue, and you may be sure it won't be my last. Please enroll me as a member of your wonderful club. I am a girl of thirteen and live in Canada, so maybe I won't be eligible.

I have been interested in aviation for a long time. The planes from the Lea Island Airport on Sundays come to a field almost across the road to take up passengers. Although I have never been up, I'm always around the planes whenever possible. We can see the mail planes from our backyard; also the big passenger plane of the United States Air Lines going to and from Vancouver and Seattle.



# Sorry—No Plans Except Those Published

Arthur Dealhoy, St. John, Canada:

Your Bill Barnes Stories are great. I have built a number of models, and would like you to send me the plans of Bill Barnes' Bumblebee Auto Gyro. I like aviation very much and read all air stories. I hope you will continue the model-building articles. How about some more complicated ones like three props? The plane in the July issue

would be a corker model. It is on page 25.

I am a patient in a hospital and would like to join your club if I am eligible.

Could you put me in touch with any one who wants to correspond and trade plans of models? I have built seven models, and for a Boeing Bomber I got first prize in the Y. M. C. A. Hobby Show at the beginning of the year. Could you please send me the plans of those models? If there is any charge I will gladly pay it, for I do want them if I can possibly get them.



#### Not Yet

Bud Keeton, Missouri:

I would like to become acquainted with you as I am interested in flying, and have taken all the math possible through high school and will take trigonometry in my last year.

Would you please tell me if the "BF-3" is in actual use, or if any flying model has been made of it, or anything resembling its type.

I would also like to know if a seaplane has been made that has its fuselage like an outboard motor and can be disconnected from the rest of the plane in case one would like to skim about the water.



# Two Suggestions

Frank Mitchell, Windsor, Canada:

After reading Bill Barnes' adventures for the last six months I have come to the conclusion that this is the club for me. I think it is one of the best.

I would like to make two suggestions: 1. A swap column. 2. A pen pal column.

You can count on me as one of your supporters,

## Accepted

Frank Dalzell, California:

I am very much impressed with the way you are presenting the Air Adventurers' Creed and Club. I am for both one hundred per cent, so I am sending in my vote and coupon. I hope you will accept both of them.

I am interested in model building, and have made about twenty-five solids and one flying. I hope to make more flying models.



# Tough Work— They Know It

Bill Wilcox, Illinois:

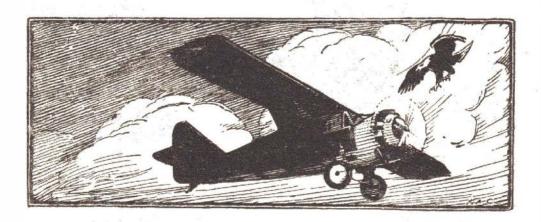
As I am joining your club, I take the liberty of expressing my ideas about your magazine.

The stories are of excellent quality and variety. You can take this from a veteran of six years' reading experience.

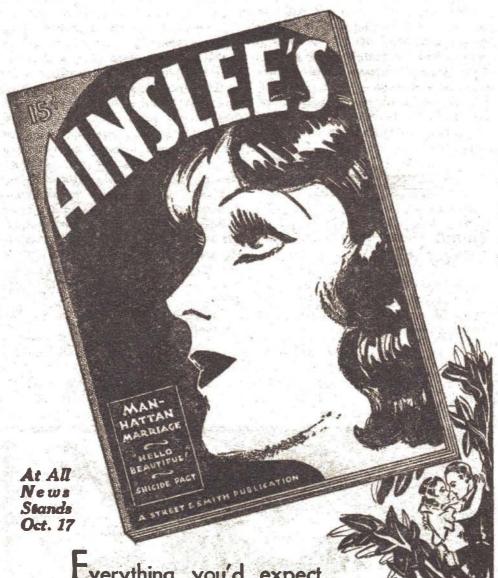
But as I glance through your readers' department I pity the lads and lassies who are ignorant of what an airplane really is. Some seem to think all there is to being an aviator is to take the old stick in their hands and zoom the bus into the beautiful, blue-vaulted sky. These honey-sweet ideas are disastrous. When these youngsters find out what there really is to flying, their hearts will drop and their interest will lag until they forget completely all idea of flying.

If your club wants to do something helpful, now is the time to do it. Form a question and answer department, or get some one to give monthly instructions on aviation data, and teach these sky-devils something technical. I'm sure your readers will approve of this suggestion.

Loads of luck to the future Bill Barnes.



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FOLKS WHO ARE NATURALLY

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This new discovery called Kelpage

not uncommen. This new discovery, called Kelp-a-Malt, now available in handy tablets offers practically all the vitally concentrated from minerals in highly concentrated form. These minerals so necessary to the digestion of fats and starches—the weight-making elements in your daily diet—

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- 2. More Calcium than 1 lb. of cabbage.
- Mare Phosphorus than 11/8 lbs. of More Sulphur than 2 lbs. of to-matoes. 4.
- 5. More Sodium than 3 lbs, of turnips.
- More Potassium than 6 lbs. of bear.s. 6.

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